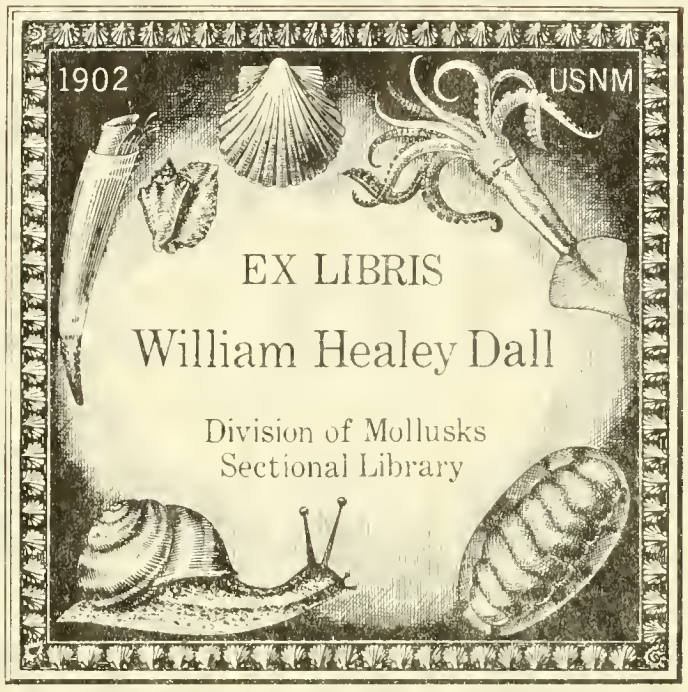

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Volume IV

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THESAURUS CONCHYLIORUM,

OR

MONOGRAPHS

OF

GENERA OF SHELLS.

EDITED BY

G. B. SOWERBY, F.L.S.

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MONOGRAPH OF THE GENUS

CYPRÆA.

Char. Gen. Molluscum gasteropodum, testam spiralem inter lobas pallii partim velans. Testa convoluta, ovato-subpyriformis vel subcylindracea, polita, interdum tuberculata vel costellata; spirâ brevissimâ, omnino aut partim cælatâ; aperturâ angustâ, ad terminos testæ extensâ, in canalem brevem utrinque terminanti, columellâ incrassatâ, ad marginem internum transversè denticulatâ, plus minusve longitudinaliter angulatim depressâ, anticè excavatâ, plerumque plicâ conspicuâ desinente; labio inflexo, incrassato, transversè dentato.—Shell convolute, ovately pyriform or subcylindrical, polished, sometimes tuberculated or ribbed; spire very short, partially or entirely concealed; aperture narrow, reaching to the extremities of the shell, terminating at each end in a short canal; columella thickened, transversely denticulated at the inner edge, more or less longitudinally angularly depressed, excavated in front, generally ending in a conspicuous plait; outer lip inflected, thickened, transversely toothed.

The genus as above described, including the *Triviæ*, is not liable to be confused with any other. In one character it is approached by the genus *Ovulum*, namely, in the inflected outer lip. But *Ovulum* has no system of transverse teeth on the base, and is otherwise easily distinguished.

Two species of *Cypræa*, namely, *C. edentula* and *C. leucostoma*, are almost toothless, but they are otherwise allied closely to species having the usual system of teeth.

In attempting to arrange the *Cyprææ* in groups according to their affinities, it is very difficult to find any leading principle of association or separation, because shells associated by one set of characters are dissociated by others. Thus,

C. Capensis and *C. Adamsoni* have been placed by some authors together under the name "*Cypræovulum*," on account of a resemblance in their system of dorsal striation, but in all other characters their affinities are widely apart. The beautiful *C. Barclayi*, differing as it does in shape and appearance from the great unique *C. leucodon*, is the only species, excepting *C. sulcidentata*, which, in the thick and deeply undercut teeth, resembles it. *C. ovulata* is very closely allied to *C. oniscus;* yet one has the regular dorsal ribs of the normal *Triviæ*, and the other is quite smooth.

Neither can the species be well separated according to their general forms, or the degree of thickening of their sides by superdeposited enamel, because, in these respects, the species pass from one to the other by imperceptible gradations, and because widely different forms are found in the same species. Thus, the common short *C. carneola*, with thickened sides, would, in an arrangement depending on forms or lateral expansion, be placed in a group with *C. arenosa*, which it greatly resembles, while the cylindrical form of the same species would range with *C. testudinaria* and *C. argus*.

The Messrs. Adams, in their able work on the genera, have not only attempted to arrange the great bulk of the smooth cowries into groups according to shape and thickness, but have applied to these groups (of impossible definition) generic names. This, for the reasons above mentioned, gives rise to some great incongruities. For instance, *C. leucodon* is made congeneric with *C. felina* and *C. teres*, but placed in a distinct *genus* from *C. sulcidentata*, which is certainly its nearest ally. Again, such unlike shells as *C. tigris*, *C. fuscodentata*, and *C. helvola* are placed in the same genus, while *C. tabescens* and *C. Caurica* are placed in different genera.

The genera *Aricia* and *Luponia* cannot be defined as distinct from *Cypræa*.

The genus *Cypræovulum* I do not adopt, because *C. Capensis*, its type, although peculiar in its external striation, is so closely allied to several species not so striated, that it could not be well separated from them, and these again could not be separated from others.

The genus *Trivia* might, perhaps, be sufficiently definable to be useful if separated from the tuberculated and some other species, many of which are now generally included in the genus. On account of these it will be better, on the whole, to consider *Trivia* in the light of a subgenus.

Few of the characters which, in combination, enable us to distinguish species of *Cypræa* are sufficiently constant and reliable to be depended upon singly. Within the limits of a species there are often variations, not only in general form and colours and marking, but in the number of teeth, their extension over the base, the production of extremities and thickness of margins, and, in *Trivia*, the continuation of dorsal ribs and the distinctness of dorsal sulcus. And yet, as a rule, the species are distinguishable at sight without any very great difficulty.

Some local cause has produced a curious variation in several species found in New Caledonia. The laterally-compressed and terminally-extended variety of *C. moneta*, described some time since as *C. Barthelemyi* by M. Crasse, has been followed by similar abnormal conditions of *C. Arabica*, *C. annulus*, *C. lynx*, and *C. stolida*, which have been respectively named as new species, *C. eglantina*, *C. Noumeensis*, *C. Caledonica*, and *C. Crossei*. The Sandwich Islands also produce a series of varieties of different species, all characterized by a peculiar yellowness in the final glazing of the shell, and some by a thinness and sharpness in the teeth and sides, differing from the normal condition of the species as well known in other localities.

The greater part of smooth and polished species of *Cypræa* have their homes within the tropics, although there are some both north and south. The ribbed species (*Trivia*) extend very far southwards and northwards, but do not abound in the tropics.

From the circumstance noticed in many species of *Cypræa* —*C. tigris* being a prominent example—of small shells being found with thickened sides and base, while larger ones are often lighter and apparently less matured, controversies have arisen in past times. Theories about casting or dissolving, and renewing the shells at different periods of the animal's existence, have been seriously put forth by eminent authorities. These theories have been deemed necessary to account for an apparent, but not a real difficulty. We have only to suppose that the animal ceases to grow at an earlier or later period of its existence. As soon as the animal ceases to grow, and no longer requires to enlarge the volume of its shell, it begins to spend its calcifying powers in thickening the base and outer walls. If this is begun early, the supply, not exhausted in the increase of volume,

is abundant for that purpose, and the result is a small, heavy shell. If late, the supply of calcifying secretion has been used up in the formation of a large shell before the thickening process begins.

In the following descriptions of species, I have endeavoured to avoid extremes in adopting or rejecting specific distinctions. Many doubtful cases there are that cannot be absolutely decided. In such cases I have endeavoured simply to state what the supposed distinctions are, leaving it to collectors to use their own judgment as to their value.

The following arrangement of species is adopted, as best tending to bring together those that are most nearly allied.

A. CYPRÆA proper. Columella ending in a lobe and plait.

* *Dorsal margins not pitted.*

1. *More or less cylindrical.* Ex. Argus, lurida, felina, stolida. Sp. 1–31.
2. *More or less ovate, with dilated sides and flat bases.* Ex. Achatina, leucodon, mappa, moneta, mus. Sp. 32–52.
3. *Same as* 2, *but with vertically-produced extremities.* Ex. Stercoraria, Scottii. Sp. 53–57.
4. *Ovate or pyriform.* Ex. Tigris, subviridis, lynx, xanthodon, pallida, Saulia, pyriformis, onyx, angustata. Sp. 58–105.
5. *South-African species with wide apertures, not margined on the left side.* Ex. Algoensis, fusco-dentata, similis, Capensis. Sp. 106–111.

** *Dorsal margins pitted.* Ex. Cribraria, Lamarckii, erosa, gangrænosa, helvola. Sp. 112–135.

*** *Ribbed or tuberculated, or allied to those that are so.* Ex. Adamsoni, staphylæa, pustulata, cicercula, Childreni, nucleus. Sp. 136–145.

B. CYPRÆA, subgenus *Trivia*. Columella without distinct lobe or plait. *Dorsal ribs radiating from central line.*

* *Narrow apertures, outer lip broad.* Ex. Radians, pediculus, australis, oryza, sanguinea, Europæa. Sp. 146–184.

** *Wide apertures, outer lip narrow.* Ex. Oniscus, rosea. Sp. 184–188.

SPECIES.

A. *Columella ending in a lobe and plait.*

* *Dorsal margins not pitted.*

Group 1. *More or less cylindrical, with moderately thickened sides.*

1. TESTUDINARIA, *Linn.*, (f. 83, 84).—C. testâ crassâ, cy-

lindricâ, punctis albis minutis creberrimè adspersâ, extremitatibus obtusis declivibus; dorso fulvo castaneoque nebulato, et quadratim maculato; lateribus fulvis maculis magnis rotundis ornatâ, basi incarnato-fulvâ; spirâ elevatâ, obtusâ, productâ; aperturâ angustâ, rectiusculâ; dentibus numerosis, albis.

Note.—The white chalky specks, which characterize this shell, are imbedded in its latest layers of enamel.

2. ARGUS, *Linn.*, (f. 14, 15).—C. testâ cyliudraceâ, crassâ, medio leviter contracto, versus terminos declivi, dorso fulvâ griseo fasciatâ, annulis castaneis interdum duplicatis valde inæqualibus notatâ; spirâ depressâ, basi angustatâ, maculis quaternis magnis castaneis ornatâ; aperturâ rectiusculâ; dentibus elongatis, linearibus, castaneo marginatis.

Note.—The curious rings, duplicate, triplicate, or simple, very large and few, or very small and numerous, or here and there large, surrounded by small, which characterize this species, and the four basal spots,—make this one of the most remarkable in the genus.

3. CERVUS, *Linn.*, (f. 89*, 90*, 181).—C. testâ elongato-subcylindricâ, fuscâ, obscurè fasciatâ, maculis albis rotundis numerosis parviusculis supra et infra ornatâ; dorso inflato vel subdepresso, ambulacro angusto subsinuoso; spirâ productâ, latè sinuatâ, extremitate anticâ sinuosâ, nonnunquam lateraliter in lobas concavas expansâ; aperturâ amplâ, moderatè sinuatâ, intus purpureâ; dentibus numerosis, linearibus, castaneis, elongatis, canalibus profundis; labii termino postico, columellam superante.

4. EXANTHEMA, *Linn.*, (f. 182, 183, 184, 330).—C. testâ *C. cervo* affini, quâcunque formâ, sed maculis albis majoribus et ocellatis.

Note.—*Cervus, exanthema.* In the series of shells included under the above names, there are two prevailing forms, namely, the rounded and depressed, and two prevailing colour-marks, the small plain white spots, and the generally larger ocellated spots. If these were coincident, *i.e.* if the flat forms were always associated with ocellated spots, and *vice versâ*, there would be no difficulty in deciding on the distinction of the species, at least for conventional use; but the characters cross. There are the rounded forms, with small white spots, and also with large ocellated ones at the sides. There are also flattened forms, with both kinds

of spots. As, however, the difference in the forms is only such as results in many species from conditions of growth, I am inclined to connect the specific distinction with the character of the spots, and to preserve that distinction for convenience. *Cervina* and *cervinetta* are only small dwarf varieties of either species.

5. TALPA, *Linn.*, (f. 74, 75, 76).—C. testâ cylindraceo-ovatâ, oblongâ, basi subdepressâ; dorso flavescente, elevato, medio subdepresso, fasciis castaneis latis quatuor cincto, extremitatibus lateribus basique nigricante-fuscis; aperturâ angustâ; dentibus numerosis, linearibus, nigrescentibus, interstitiis albidis; labii extremitate posticâ columellam superante.

6. EXUSTA, *Gray*, (f. 77, 78).—C. testâ quam *C. talpa* magis pyriformi, omnino castaneo suffusâ, aperturâ angustiore; dentibus magis numerosis, creberrimis; labii extremitate posticâ magis elevatâ.

Note.—Talpa and *exusta*. *Exusta* is more pyriform than *C. talpa*. Its aperture is much narrower, and the linear black teeth are much more close and numerous, especially on the columella. The outer lip is much more elevated above the apex.

7. LURIDA, *Linn.*, (f. 64, 65).—C. testâ cylindricâ; extremitatibus productis, depressis, croceo-incarnatis, maculâ magnâ nigricante utrinque tinctis, basi subdepressâ; dentibus brevibus; dorso cinereo-olivaceo obscurè trifasciato; basi pallidâ; aperturâ utrinque amplâ.

8. PULCHRA, *Gray*, (f. 62, 63).—C. testâ oblongo-ovatâ seu cylindricâ, carneolâ, fulvo fasciatâ; extremitatibus productis, depressis, utrinque nigro-maculatis, basi subplanatâ, aperturâ angustâ; dentibus depressis, linearibus, columellæ medio per basim extensis.

Note.—Lurida and *pulchra*. The apparent resemblance between these two is quite deceptive, and only refers to the back view. The bases are totally different.

9. ISABELLA, *Linn.*, (f. 16–18, 258).—C. testâ cylindricâ, utrinque subtruncatâ; dorso pallidè fulvo-cinereo, punctis lineisve interruptis nigris longitudinalibus plus minusve notato; extremitatibus crocco quadripunctatis, obtusis; aperturâ angustâ, rectiusculâ; dentibus minutissimis, basi albâ; variat magis fusiformi, viz. f. 18, maculis magnis terminalibus nigrescentibus confluentibus, vide f. 18, 258.

10. CINEREA, *Gask.*, (f. 92*, 93).—C. testâ subcylindraceo-ovali, rufescente-cinereâ, nigro punctatâ et lineatâ, fasciis latis saturatioribus tribus; basi marginibusque albescentibus, rotundis, incrassatis; aperturâ latiusculâ, subspirali, labio crassiusculo; dentibus circa viginti, regularibus, prominulis; columellâ medio prominulo dentibus circa octodecim; extremitatibus obtusis, punctis minutissimis nigris notatis.

11. CLARA, *Gask.*, (f. 91*, 222).—C. testâ quam *C. cinerea* magis cylindricâ, basi medio prominulâ, extremitatibus elevatis; aperturâ angustiore; dentibus magis numerosis, minoribus.

12. REEVII, *Gray*, (f. 40, 41).—C. testâ ovatâ, tenui, ventricosâ; dorso pallidè purpureo-fusco, obscurissimè quadrifasciato; basi albidâ; spirâ exsertâ, roseâ, extremitatibus roseis; aperturâ utrinque amplâ, medio subcontractâ; dentibus parvis, tenuibus, numerosis.

Note.—*Isabella* (and *controversa*), *cinerea*, *clara*, *Reevii*. Comparisons between many specimens and varieties of *isabella* and *controversa* have finally resulted in the opinion that they are one species, and that the proposed separation was rightly abandoned by Dr. Gray. *Cinerea* and *clara* were almost equally difficult to decide, but the result is the maintenance of the second species, on account of the greater coarseness of the teeth and flatness of the base in *cinerea*. Specimens of *Reevii* usually have the appearance of undeveloped shells, and, when placed side by side with partially developed specimens of *cinerea*, are found to bear a considerable resemblance to them. The species, however, is quite distinct.

13. IRRORATA, *Soland.*, (f. 304, 305).—C. testâ oblongo-subcylindraceâ, depressâ; dorso purpureo, punctis numerosis fulvo-fuscis adsperso, lateribus basique albidis castaneo punctatis; basi complanatâ; dentibus parvis, columellæ anticis conspicuè prominentibus.

Note.—The remarkable prominence of the anterior columellar teeth in this pretty little species, distinguishes it from any others of similar form.

14. INTERRUPTA, *Gray*, (f. 271–274).—C. testâ oblongo-cylindraceâ; dorso supernè subquadrato, subplicato, punctis flavidis minutis punctato, maculis castaneis flammulatis in seriebus depositis picto; extremitatibus productis, callosis, lateribus albidis; basi cæruleo maculatâ; aperturâ angustatâ;

dentibus parvis, crebris, columellæ medio depressis, lineari-bus; variat seriebus macularum nullis, callo terminali anticè conspicuo.

15. QUADRIMACULATA, *Gray*, (f. 275–277).—C. testâ *C. interruptæ* simili, supernè ad spiram magis truncatâ, ad extremitates maculis nigris quaternis ornatâ; dentibus labii paucioribus, columellæ ad medium multo magis elongatis.

Note.—Interrupta, quadrimaculata. Although we may characterize *C. interrupta* as having bands of flashes or long bent spots, etc., and *C. quadrimaculata* as having the four large, conspicuous, terminal, black spots, yet the one occurs without the band, and the other (var. "*pallidula*") without the spots. Var. pp. 274 and 275, has been designated as a distinct species, under the name of *rhinoceros* (Desh.), on account of the callous swelling of the anterior terminal deposit. The character exists in most specimens in a greater or less degree.

16. CAURICA, *Linn.*, (f. 188–193; forma monstrosa, f. 318, 319).— C. testâ subcylindraceâ seu ovatâ, subdepressâ, crassâ, terminis obtusis, lateribus plerumque incrassatis, irregulariter subnodosis; dorso albido, punctis minutissimis flavicante-fuscis creberrimè picto, hiatu angusto; lateribus fulvis, frequenter subtilissimè striatis, guttis nigerrimis conspicuis hinc illic ornatis; basi fulvâ; dentibus elevatis, albis, distantibus, utrinque elongatis.

17. CRUENTA, *Gmel.*, (f. 185, 186, 187).—C. testâ *C. Cauricæ* simili, magis ovatâ, regulari, terminis magis acuminatis; colore ad dorsum maculis albis subrotundis irregulariter interrupto, maculis lateralibus purpureis; dentibus columellæ haud tantum elongatis, interstitiis dentorum vividè sanguineis.

Note.—Caurica and *cruenta.* The former is a much coarser, more irregular shell than the latter, both in form and colouring. In *cruenta* the ends are more gathered up, as it were, and acuminated; the colouring on the back is delicate, and interrupted by more or less distinct white spots. The side spots are purple, and the interstices of the teeth bright red. Fig. 190 represents a shell having most in common with *C. Caurica*, although as to colouring it is rather puzzling, presenting an intermediate appearance. In the columella of *cruenta*, a greater degree of roundness has been observed beyond the superficial edge of the latter.

18. TABESCENS, *Sol.*, (f. 261–265).—C. testâ oblongo-subcylindricâ vel ovatâ, ad spiram umbilicatâ; dorso albido, flavido-fuscescente pallidè punctato, maculis angulatis vel semilunaribus latè trigonato, termino spirali umbilicato; lateribus pallidè carneolis, sparsim fusco guttatis; basi carneolâ, rotundâ, extremitatibus obtusis; aperturâ angustâ; dentibus parvis, numerosis, columellæ brevissimis, labii longioribus.

19. TERES, *Gmel.*, (f. 259, 260).—C. testâ tenui, quam *C. tabescens* angustiore, cylindricâ, terminis productioribus; aperturâ latiore, supra medium subangulatâ; dentibus minoribus.

Note.—Tabescens and *teres*. The gradation is fine from the more slender forms of *C. tabescens* to *C. teres*, but the more sudden bend of the aperture, more produced extremities, and more numerous teeth are sufficient to distinguish the latter.

20. CYLINDRICA, *Born.*, (f. 266–268). C. testâ oblongâ, cylindraceâ, medio vix contractâ, depressâ; dorso subcæruleo, punctis minutis, strigis angulatis et maculâ magnâ centrali castaneis variegato; extremitatibus maculâ conspicuâ nigro-castaneâ utrinque pictis, lateribus extremitatibusque marginatis reflexis, utrinque foveolatis; aperturâ anticè expansâ; dentibus columellæ posticis et medianis linearibus, per basim elongatis, anticis distantibus validis; labii dentibus validis, distantibus, elongatis; labio angusto.

21. SUBCYLINDRICA, *Sowb.*, (f. 269, 270).—C. testâ quam *C. cylindrica* magis ovatâ, latere dextro haud marginato, termino antico magis declivi; dentibus labii brevioribus, columellæ brevissimis.

22. FELINA, *Gray*, (f. 392, 394, 395; var. *C. fabula*, brevi, crassiore, lateribus expansis, f. 393).—C. testâ oblongâ, subdepressâ; dorso viridi-cæruleo, latè trifasciato, punctis olivaceis ubique lentiginoso; lateribus flavicantibus, incrassatis, maculis nigris magnis rotundis notatis; terminis obtusis, maculis majoribus nigris utrinque pictis; basi incrassatâ, flavicante, subdepressâ, ad latera maculis nigris pictâ; aperturâ rectiusculâ, latâ; dentibus 17 et 18 circà crassis, subelongatis, distantibus.

23. HIRUNDO, *Linn.*, (f. 382, 383, 384).—C. testâ *C. felinæ* affini, latere dextro tantum marginato, terminis magis acu-

tis; dorso posticè subtruncato, ad marginem leviter crenulato, trifasciatim cæruleo nebulato, punctis minutissimis notato.

24. NEGLECTA, *Sowb.*, (f. 374, 375, 376, 377, 378).—C. testâ *C. hirundini* affini; dorso posticè validè truncato; extremitatibus callosis, posticâ productâ, anticâ acuminatâ; dentibus elongatis.

25. OWENII, *Sowb.*, (f. 367, 368, 369, 370, 371; var. *monstrosa*, f. 366).—C. testâ *C. hirundini* affini; dorso elevato; basi complanatâ; extremitatibus productis, acuminatis, ad latera plano-depressis; lateribus creberrimè fusco punctatis; dentibus elongatis.

26. COFFEA, *ms.*, (f. 359, 360).—C. testâ *C. hirundini* affini, brevi, ovatâ; extremitate posticâ productâ, incrassatâ; dentibus labii terminalibus reflexis, ad dorsum continuis.

27. MENKEANA, *Owen*, (f. 333, 334; var. (Borneo) 512).—C. testâ *C. hirundini* affini; extremitatibus utrinque productis, callosis; quam *C. neglectæ* dorso magis quadrato, breviori, medio subdepresso.

Note.—Felina (fabula), hirundo, neglecta, Owenii, coffea, Menkeana. The large dark spots and thickened sides of *felina*, exaggerated in the thickened and shortened variety (*fabula*, Kien.), with the blunt extremities, are sufficient to distinguish it from *hirundo*, although there may be some similarity between modified forms of each. The outline figures of the latter and two following species, express the differences which it may be useful to observe. In *hirundo* the back is low, and shelves down to the extremities. In *neglecta* the shell ends in front suddenly with a short reflected margin, the back is truncated, and the neck contracted and produced with depressed sides. In *Owenii* both extremities are produced like the hinder one in *neglecta*, but much more distinctly, while, on each side of the callus, at each end, there is a deep flat depression; the base is very flat, the lateral brown dots much crowded on it, and the back is almost angularly elevated. Specimens of this shell have been brought to me as representing *C. Menkeana*, of Deshayes, with which, however, it does not well agree. Sir David Barclay kindly lent me the shell figured in my last Plate (f. 514, 515), and believed at the time to represent Deshayes' shell. But, on more careful examination, I am

convinced that the latter belongs to our present group. The teeth, more than half across the base, point this out, and the shell which Mr. Hugh Owen names *modesta*, which agrees in shape and colour with two specimens figured in Con. Ill. as *hirundo*, var. (12*), and in shape with Mr. Taylor's Bornean shell, f. 512, in our Plate 327, seems to me to fulfil all the conditions to identify it with *Menkeana*. It differs, on the one hand, from *neglecta*, in its more truncated and cylindrical or straight-sided form, and in having the canal produced at both ends; and, on the other hand, from *Owenii*, in the laterally rounded base and the want of flattened latero-terminal margins. *Coffea* (ms.) differs from the rest of the group, in having the dental ridges continued over the dorsal margin of the posterior extremity, and this is nearly always accompanied by a peculiarly lobed shape in the central colour-cloud and its detachment from the lower cloud. Fig. 366 represents a little shell in Miss Saul's collection (probably *Owenii* var.), possessing the same peculiarity as occurs in the so-called *C. Barthelemyi, eglantina*, etc., *i. e.* of compressed sides and produced extremities. All the species named at the head of this note, with the exception of *felina*, are so closely allied, that they may possibly belong in reality to the same original type; but the distinctions here explained, are worth retaining conventionally for purposes of identification.

28. STOLIDA, *Linn.*, (f. 327, 328).—C. testâ oblongo-subcylindraceâ; dorso leviter biangulato, cærulescente, punctis minutissimis, maculâ grandi quadratâ centrali, maculâque laterali semiquadratâ ad utrumque angulum aurantio-castaneis vividè picto; basi lateribusque albicantibus; extremitatibus aurantio-castaneis, productis, callosis; aperturâ angustâ; dentibus linearibus, columellæ super basim dimidiatim decurrentibus, labii prolongatis.

29. ERYTHRÆENSIS, *Beck.*, (f. 323, 324).—C. testâ *C. stolidæ* affini, parviusculâ, magis angustatâ et subpyriformi, maculâ centrali irregulari, maculis cuneiformibus lateralibus nullis.

30. BREVIDENTATA, *Sowb.*, (f. 325, 326).—C. testâ *C. stolidæ* affini, maculâ centrali disjunctâ; dentibus paucioribus (13 et 14), rotundis, brevibus.

Note.—Stolida, Erythræensis, brevidentata. The total absence of the four corner lateral spots, the colourless teeth, narrower and more tapering form, and smaller size of *Ery-*

thræensis are generally considered sufficient to distinguish it from *stolida*. There are four specimens known of the shell here named *brevidentata*. In its dorsal aspect it resembles some incompletely coloured specimens of *stolida*, but the teeth totally differ. Those of the latter are linear, coloured, numerous, and lengthened over the base. Those of *brevidentata* are short, rounded, and only about fourteen on each side. Two of the specimens are from Borneo, and are collected with *C. stolida*, varieties of which, rather marked in colouring, are now had from Sandwich Islands, Ceylon, Amboyna, Borneo, and New Caledonia; the latter in the laterally contracted and terminally produced form, recently named *C. Crossei*, Marie.

31. TESSELLATA, *Swain.*, (f. 99, 100, 101).—C. testâ crassâ, solidâ, latâ, subcompressâ, ovato-subquadratâ; lateribus incrassatis, maculis quadratis fuscis et albis tessellatis; dorso ferrugineo-subcinereo, ad latera maculis quatuor magnis vividis nigro-castaneis ornato; extremitatibus crassis, obtusis, callosis, ad latera depressis, callo antico rotundato albo; basi incrassatâ, fusco alboque variegatâ; aperturâ angustâ; dentibus linearibus, castaneis.

Note.—The brilliant specimens of two distinct varieties, figured from the collections of Miss Saul and Mr. Dickinson, are believed to be the only ones known in a living state. This shell, although standing alone in its combination of characters, seems to have some affinity with *stolida*.

A*. Group 2. *More or less ovate, with dilated sides and flat bases.*

32. VENTRICULUS, *Lam.*, (f. 3, 4).—C. testâ ovatâ, ponderosâ; lateribus expansis, subdepressis, extremitatibus obtusis, basi subconcavo-depressâ; dorso cæruleo, colore carneo quadrifasciato; lateribus subcæruleis ad marginem dorsalem castaneo-nigricanti fasciatis, basi et lateribus subtilissimè albo striatis; dentibus parvis.

Note.—The name *Achatina* was only in manuscript before the publication of Lamarck's *Ventriculus*.

33. CARNEOLA, *Linn.*, (f. 11, 12, 13, 322).—C. testâ varietate brevi incrassatâ, *C. avenosæ* simillimâ, sed basi magis rotundâ; labio haud excavato; extremitate dorsali anticâ callosâ, posticâ valde emarginatâ; dentorum interstitiis purpureis; labii dentibus 24; variat testâ majori, cylindricâ, vividè

carneolâ, etiam variat testâ cylindricâ minori, flavidâ, dentorum interstitiis haud purpureis.

34. ARENOSA, *Gray*, (f. 9, 10).—C. testâ ovatâ, latâ; lateribus arenaceis, callosis, ad dorsum lineâ castaneâ marginatis; dorso elevato, subcinereo, rubro obscurè fasciato; extremitatibus obtusis, anticâ declivi, posticâ vix emarginatâ; basi subplanulatâ, extremitatibus prominulis; aperturâ angustâ; dentibus parvis, circa 24 et 30 labio anticè excavato.

Note.—The more cylindrical form of *carneola*, with the basal callus very little spread at the sides, seems to rank with *argus*, *Talpa*, etc. The variety we have figured at 332 is from the Mauritius, and has no purple between the teeth, yet unmistakably belongs to the species to which it is assigned.

35. LEUCODON, *Brod.* (f. 19, 20).—C. testâ crassâ, subpyriformi, ventricosâ; dorso gibboso, elevato, rufescente, aut flavescente-fusco, guttis rotundis albidis distantibus aspero, basi ambulacro dorsali lato, laterali convexo, obscurè tuberculato, pallidiore; transversè subtilissimè striatâ, terminis productis, acuminatis; tuberculis rotundis, sinuatis; dentibus utrinque elongatis, albis, distinctis, 28–30 circa, interstitiis profundis; plicâ terminali anticè trifidâ.

36. SULCIDENTATA, (f. 21, 22, 23).—C. testâ crassissimâ, ovatâ, brevi, gibbosâ, callo dorsali ad latera dorsi extenso; dorso elevato, griseo vel flavido, obscurè quadrifasciato, basi et lateribus fulvis; terminis obtusis, callosis, ad margines excavatis; aperturâ angustissimâ; dentibus latis, elongatis, interstitiis angustis profundissimis 21 et 25 circa.

Note.—Leucodon, sulcidentata. The first of these species is the remarkably unique shell in the British Museum, which differs from all others in various characters, particularly in the flattened tubercles on the base, seemingly resulting from a thickening over the white spots of the surface covered. The broad teeth and deep undercut interstices are only approached in character by those of *sulcidentata*, which for that reason chiefly may be considered as bearing the nearest affinity to *leucodon* among the cowries. The other unique, *Barclayi*, has the teeth, particularly of the outer lip, also deeply undercut, but in other respects has no resemblance to the above.

37. VITELLUS, *Linn.*, (f. 31, 32, 33).—C. testâ ovatâ, dorso

et ad latera fulvâ grisescenti, obscurè roseo quadrifasciatâ, maculis rotundis albis inæqualibus instructâ; extremitatibus obtusis, subincrassatis, callo basali ad latera; dorso expanso, transversè striato, arenaceo; basi subrotundâ, striatâ, arenaceâ; aperturâ angustâ, anticè rectiusculâ; dentibus utrinque 28 circa, sulco columellari anticè excavato posticè leviter dentato, plicâ terminali tortuâ, termino obliquè truncato.

38. NIVOSA, *Brod.*, (f. 89, 90).—C. testâ quam *C. vitellus* magis cylindricâ, callo basali haud ad latera expanso, ambulacro dorsali lato conspicuo, irregulariter marginato; maculis albis, irregularibus, inæqualibus; columellæ plicâ terminali quadratim truncatâ; labii extremitate brevi, rotundâ, labio anticè excavato.

39. BRODERIPII, *Gray*, (f. 87, 88).—C. testâ quam *C. nivosa* magis ovatâ, colore dorsali roseo laterali fulvo-rubescenti, intervallo macularum castaneo; maculis majoribus irregularibus; interstitiis ferè linearibus; aperturâ latiori; dentibus magis elongatis, interstitiis profundioribus; labio ad terminum anticum breviusculo, truncato, ad terminum posticum alterum superante.

Note.—Vitellus, nivosa, Broderipii. The first is oval, obtuse, shows no dorsal ambulacrum, and has the cirrated enamel of the base spread over the sides, leaving a rather narrow space for the true dorsal area. The two others have a broad dorsal ambulacrum, and the basal callus is confined to the under side, except at the extremities. *Broderipii* is by far the lighter and broader shell, with the most delicate colouring, the spots more numerous and varied in form, the mouth wider, and teeth longer.

40. PRINCEPS, *Brod.*, (f. 1, 2).—C. testâ ovato-subpyriformi, inflatâ, tenuiusculâ, ad lineam dorsalem utrinque castaneo nebulatâ, strigis arcuatis quasi-hieroglyphicis notatâ, lateribus fulvâ maculis rotundis pictâ; terminis productis, lineis castaneis plurimis sinuatis ornatis; dorso elevato, supra medium gibboso; basi rotundâ; extremitatibus acuminatis, approximatis; aperturâ angustâ, subsinuatâ; labio anticè arcuato, subexcavato; dentibus parvis, columellæ 39 circa, labii 41, interstitiis profundis, sulco columellari angusto; plicâ terminali productâ, arcuatâ.

Note.—In form approaching *C. tigris*, but much more inflated. In its dorsal markings it reminds one slightly of

the *C. mappa*. But the parallel lines of the extremities are perfectly peculiar to this species, which is one of the oldest of the few extremely rare shells which retain their original value.

41. MAPPA (f. 24–28).—C. testâ oblongo-ovatâ, crassâ, ad terminos obtusâ; dorso pallidè fulvo, purpureo nebulato; lineis rubido-fuscis interruptis angulatis undatisque longitudinaliter notatâ, hiatu dorsali angusto ramoso lateribus violaceo-fusco punctatis, ad dorsum sinuatum marginatis; basi violascente seu fulvâ, maculâ magnâ violaceo-fuscâ medio columellæ ornatâ, guttis rotundis purpureis seu fuscis ad latera pictâ; aperturâ angustâ; dentibus brevibus, rotundis; interstitiis aurantiis; variat basi vividè purpureâ, variat etiam testâ omnino rubro-purpurascente suffusâ.

Note.—The chief varieties of this beautiful species are figured from the collection of Miss Saul.

42. ARABICA (f. 59, 60, 61; var. *eglantina*, f. 282, 283).—C. testâ oblongo-ovatâ, basi planulatâ; spirâ exsertâ, lateribus plus minusve incrassatâ; dorso elevato, medio subdepresso, livido-fusco, lineis brevibus hieroglyphicis hinc illic maculis rotundis pallidis interruptis; hiatu angusto, rectiusculo; aperturâ hianti, sulco columellari lato dentato; dentibus linearibus, castaneis, elongatis; extremitatibus profundè emarginatis.

43. RETICULATA, (f. 57, 58, (var. *histrio*) 66, 67, 68).—C. testâ *C. Arabicæ* simili; dorso magis gibboso; basi frequenter magis convexâ; maculis dorsalibus albis, crebris; interstitiis angustis, frequenter reticulatim linearibus.

44. SCURRA, *Chemn.*, (f. 53, 54, (var. *C. Indica*) 55, 56).—C. testâ oblongo-subcylindraceâ, anticè subretusâ, posticè magis productâ, spirâ pyramidali; dorso subdepresso, cinereo, fusco reticulato; hiatu lineari, lateribus basique cinereo-carneis, guttis fumeo-nigrescentibus conspicuis hinc illic ornatis; aperturâ angustâ; dentibus numerosis, linearibus, castaneis.

Note.—Arabica, reticulata (including *histrio*), *scurra* (includiug *Indica*). Although some difference appears in the specimens selected to represent *reticulata* and *histrio* respectively, it is impossible to maintain the distinctions in sorting any number of specimens of the various forms, the differences being graduated and interchangeable. There is,

however, more uniformity in the shape and colouring of *Arabica*, which is more cylindrically ovate, with a flattened base, and in which the Arabic marking is more conspicuous, and occupies a larger part of the surface. The two species may, therefore, usefully stand. Miss Saul has a very singular specimen, in which the characteristic marking of *Arabica* is shown on one side of the ambulacrum, while on the other that of *reticulata* dominates, showing that there is no absolute line of demarcation between them, and that the two specific names are only retainable for conventional use. The monstrosity named *eglantina*, f. 282, 283, is from N. Caledonia, and is one of the singular series mentioned in the introduction. The differences between *scurra* and *Indica* are only those of degree. The spire being much produced, and covered with the usual callus at the end of the columella, causes the columellar extremity to exceed the outer lip in length.

45. MAURITIANA, (f. 51, 52).—C. testâ subovatâ; dorso gibboso; terminis obtusis, emarginatis; lateribus ad dorsum planulatis; basi concavâ; lateribus basi dentibusque fusco-cæruleo-nigricantibus; interstitiis albidis; labio posticè sinuatim retrorso, acuto; columellâ posticè brevi, acutâ; dentibus validis, radiantibus, elongatis; dorso pallidè fusco, purpureo nebulato, maculis pallidis rotundatis irregularibus notato; interstitiis castaneis.

Note.—Remarkably beautiful in the wavy colouring when partially mature.

46. ARABICULA, (f. 38, 39).—C. testâ ovato-acuminatâ, dorso elevato subgibboso, lateribus depressis; basi planulatâ; dorso cærulescente, fusco creberrimè subreticulatim picto; hiatu angusto, extremitatibus lateribusque purpureo-carneis, lateribus guttis rotundis nigricantibus notatis; aperturâ angustâ; dentibus acutis, radiantibus; interstitiis profundis.

Note.—This bright little shell, which is like a miniature of *reticulata*, has the teeth very sharply undercut and radiating.

47. CAPUT SERPENTIS, *Linn.*, (f. 72, 73).—C. testâ ovato-subquadratâ, depressâ, crassâ, solidâ; dorso medio maculis albis et interstitiis castaneis reticulato; extremitatibus obtusissimis, albicantibus; lateribus depressis, castaneis; basi albicante; aperturâ rectiusculâ; dentibus conspicuis, subelongatis; interstitiis profundis; canalibus angustatis.

Note.—Although this species resembles in general appearance the dwarf depressed variety of *reticulata*, it has little affinity with it. The teeth are thick and undercut, not superficial.

48. MUS, *Linn.*, (f. 29, 30; var. *bicornis*, f. 321).—C. testâ ovato-subturbinatâ, ventricosâ, latâ, fusco-cinereâ, maculis saturatioribus omnino variegatâ, ad lineam dorsalem castaneo-nigricante irregulariter maculatâ, marginibus subexpansis, extremitatibus subacuminatis approximatis; basi subcomplanatâ; dentibus castaneis, columellæ circa 12 obtusis, labii circa 17 brevibus parvis distantibus, ultimo lineari.

49. LEUCOSTOMA, *Gask.*, (f. 36, 37).—C. testâ ovato-subturbinatâ, ventricosâ, latâ, fusco-cinereâ; lateribus maculatis maculâ magnâ irregulari castaneâ circa lineam dorsalem expansâ; marginibus rotundis, crassis, extremitatibus posterioribus latis incrassatis prominentibus, columellæ alteram superanti, anticis angustis approximatis; basi rotundâ, albicante, margine interno labii nonnunquam obscurè dentato; columellâ edentulâ.

Note.—The broad, dark chestnut, dorsal marking is sometimes covered by the external enamel.

Mus, leucostoma.—The posterior extremities of *C. leucostoma* are much thickened, the base rounded, the columella edentulate, the outer lip nearly so,—in these respects differing from *C. mus*. The usual variety of *leucostoma* is remarkable for the patch of treacle-like colour on the back. There are, however, specimens in which this is wanting. Mr. Hugh Owen possesses a beautiful shell, which is of a uniform cream-colour, excepting as to the teeth, which are of a delicate reddish-brown. The bituberculated variety of *mus* has received the name of *bicornis*.

50. MONETA, *Linn.*, (f. 244–251; var. *C. icterina*, Lam., testâ elongatâ, f. 248; var. *C. Barthelemyi*, Bern., f. 249–251, and *B. Noumeensis*, Crosse (annulo conspicuo), testâ basi plano-concavâ, extremitatibus productis).—C. testâ solidâ, subcompressâ, quadrilaterali, flavidâ; dorso cæruleo fasciato; basi concavo-depressâ; lateribus incrassatis, supra frequenter tuberculatis, annulo aurantio nonnunquam circumscriptis; terminis tumidis, plerumque latis obtusiusculis, interdum productis acuminatis; aperturâ angustatâ, anticè paulo expanso; canalibus elongatis, edentulis; den-

tibus 13 et 15 crassiusculis, convergentibus; interstitiis profundis.

51. ANNULUS, *Linn.*, (f. 252, 253).—C. testâ *C. monetæ* affini, subcinereo-fulvâ, ovatâ; termiuis obtusissimis, lateribus declivibus, annulo aureo conspicuo; lateribus incrassatis, supra dorsum inflato-elevatis; dorso angusto, depresso.

52. OBVALLATA, *Lamk.*, (f. 254, 255).—*C. monetæ* affini, testâ oblongo-obtusâ; lateribus incrassatis, supra dorsum elevatis; dorso cæruleo, depresso.

Note.—*Moneta* (including *icterina, Barthelemyi, Noumeensis*), *annulus, obvallata.* The above are probably varieties and states of the same species in reality, but the oval obtuse form of *annulus,* the raised sides and dorsal entrenchment of *obvallata* (corrected from *obvelata*), are so well marked that they can be easily separated, and may therefore usefully retain their distinctive names. On the other hand, *Barthelemyi* and *Noumeensis* are so obviously distortions similar to those which occur in several other species in New Caledonia, that their description under separate names is to be regretted.

A*. Group 3. *More or less ovate, with flat bases and margins of extremities produced vertically.*

53. STERCORARIA, *Linn.*, (f. 96–98).—C. testâ ovatâ, gibbosâ, ventricosâ; basi planulatâ, anticè concavâ; marginibus lateralibus depressis, subalatis, canali postico productis; dorso elevato, frequenter gibboso, cinereo, maculis rotundis fusco-ustulatis creberrimè vel sparsim nebulato; terminis profundè emarginatis; basi lateribusque cinereo-carneis, maculatim nebulosis; aperturâ sinuosâ; dentibus albis, anticis elongatis.

Note.—Lamarck's *C. rattus* is the more gibbous variety, with fewer burnt-brown spots.

54. SCOTTII, *Brad.*, (f. 47, 48).—C. testâ oblongâ, fusiformi, acuminatâ; extremitatibus contractis et erecto-recurvis; marginibus productis, ad latera planato-depressis; dorso cinereo-purpurascente, fusco-ustulato et subaurantio maculato; lateribus basique fusco-ustulatis; basi subplanulatâ, anticè conspicuè concavâ; dentibus albicantibus.

55. THERSITES, *Gask.*, (f. 49, 50).—C. testâ ovatâ, gibbosâ;

dorso elevato; basi latâ planâque, saturatè rufescente-fuscâ, anticè posticeque depressiusculâ; aperturâ angustatâ, posticè recurvâ; dentibus albis, distinctis, labii externi validis, columellæ minus prominentibus, sulco columellari anticè profundo lato; extremitatibus valde productis, canali antico pleno.

56. MARGINATA, *Gask.*, (f. 45, 46).—C. testâ ovatâ, anticè subacuminatâ, posticè et medianè valde gibbosâ, colore floris lactis, maculis fulvis paucis irregulariter sparsis; basi valde planâ et latâ; marginibus externis medianò fulvo-brunneo punctatis, punctis discretis; aperturâ latâ, subspirali; columellâ posticè gibbosâ, sulco parvo antico; dentibus lateris columellaris circa viginti, latè distinctis, lateris externi æqualibus paululum extensis, anticè minoribus, circa viginti novem; extremitatibus, posticâ productâ planâ, canalem latum sursum formante, anticâ minus productâ convergente, canalem brevem sursum formante; spirâ valde conspicuâ; marginibus planis, tenuibus, valde extensis.

57. THATCHERI, *Cox*, (f. 5, 6).—C. testâ pallidè carneâ, ad dorsum pallidè roseo-purpureo suffusâ, maculis rotundis sparsis et flammulis castaneis pictâ; dorso rotundo, inflato; spirâ rotundatim exsertâ, extremitatibus obtusis, ad latera planato-subdepressis; marginibus posticè erectis; basi planulatâ; aperturâ rectiusculâ, dentibus rotundatis, columellæ 6 anticis circa validioribus, labii 6 ad 7 anticis radiatim elongatis.

Note.—Scottii, Thersites, marginata, Thatcheri. The two former, although curiously allied, differ so much in proportions, that they run no risk of being confounded with each other. The thin, flattened, and crenulated base of *marginata*, and its comparative colourlessness, may quite probably be the result of premature formation. If so, it belongs to *Thersites*. The specimen figured is in the British Museum. Miss Saul's collection includes a specimen slightly resembling it, which is a shortened and prematurely formed *C. Scottii*. *C. Thatcheri*, as it is now named, has been many years known as a unique shell in Miss Saul's collection, under the name of *venusta*, but no publication, strictly so-called, can now be proved. The specimen now sent to this country by Mr. Cox, to which it would have been more graceful to have applied the manuscript name, is a larger, and in some respects finer shell, than the one so long known. Miss Saul likewise possesses two young shells, which I have

little hesitation in attributing to this species. One or more additional adult specimens are now believed to exist.

A*. Group 4. *Ovate and pyriform.*

58. AURORA, *Soland.*, (f. 7, 8).—C. testâ ovatâ, ventricosâ, dorso aurantiâ, lineis albis subtilissimis transversis striatâ; extremitatibus marginatis incrassatis, pallidis; basi rotundâ, pallidè fulvâ; aperturâ subsinuosâ, sulco columellari lato acutè dentato, plicâ terminali tortuâ anticè triplicatâ; dentibus columellæ circa 41 brevissimis, labii 41, interstitiis aurantiis; labio anticè excavato.

Note.—This celebrated species is still rare, and specimens in good condition are still sought for. The curious white collar-like margin, at each extremity, adds to the beauty of the shell, and increases the singularity of its character.

59. TIGRIS, *Linn.*, (f. 172–175).—C. testâ ovatâ, crassâ, ventricosâ, griseo vel fusco vel aurantio variè nebulatâ, maculis magnis rotundis irregularibus fuscis aut nigrescentibus saturatis dorso et ad latera pictâ; extremitatibus obtusis, labii posticâ elevatiusculâ; spirâ subdepressâ, lineâ dorsali sublaterali; columellâ subrotundâ; dentibus circa 22 brevibus, rotundis, obtusis, 5 ad 6 anticis majoribus, terminali crasso distanti, sulco columellari subplanulato; labii dentibus circa 26.

60. PANTHERINA, *Sol.*, (f. 69–71).—C. testâ pyriformi, tenuiusculâ, ventricosâ, griseo vel fusco vel aurantio variè nebulatâ, maculis numerosis rotundis fuscis aut nigrescentibus saturatis dorso et ad latera pictâ; extremitatibus productis, anticis attenuatis; dentibus columellæ circa 26, terminali elongato subtortuo, labii 30; labio subattenuato; spirâ subumbilicatâ.

Note.—*Tigris* and *pantherina*. Perfectly distinguishable by the graceful form, more numerous teeth, produced extremities, and smaller spots of the latter. Both species are subject to the deep mahogany variation, as well as the overlaid yellow found in so many Sandwich Island shells. The large and very ventricose varieties of *C. tigris* are much thinner than the smaller ones, which would seem to indicate their having attained large dimensions before completing their growth; the former have exhausted their secretions, so as to have little calcifying power left for the thickening process.

61. UMBILICATA, *Sowb.*, (f. 42, 43, 44).—Testâ pyriformi, posticè ventricosâ, anticè attenuatâ, lacteâ, fulvo-nebulosâ, maculis rotundis parvis fuscis ad dorsum variegatâ, spirâ profundè umbilicatâ; extremitate spirali ad latera depressa subexpansâ, extremitate anticâ in aream trigonam depressâ; basi subplanatâ, minutissimè granulatâ; aperturâ angustâ, tortuâ, posticè retrorsâ; columellæ et labii extremitatibus productis, acuminatis, columellâ supernè ventricosâ dentibus brevibus tenuibus, infra medium inflatâ dentibus longioribus, plicâ terminali nullâ; labii dentibus tenuibus, anticis longioribus.

Note.—The resemblance of this species to *C. pantherina* is very superficial. The peculiar depression of the anterior extremity, and obsoleteness of the terminal columellar toothfold, would bring it into *Cypræovula*, if that genus were established.

62. MELANOSTOMA, *Leathes*, (f. 34, 35).—C. testâ ovatâ, extremitatibus prominentibus; dorso rotundo, pallidè fulvo, cinereo fasciato, maculis rotundis albis floccato, ad apicem subumbilicato, latere dextro ad extremitates tantum albo marginato; basi rotundâ, albâ; aperturâ intus violaceâ, latiusculâ; dentibus columellæ parvis interstitiis violaceo-nigricantibus, labii rotundis interstitiis albis.

Note.—This species is usually associated for comparison with *vitellus*, but no specimens of it exhibit any tendency to lateral thickening, and transverse lineation of the base and sides. It is also of a pyriform shape, with the ends produced.

63. LYNX, *Linn.*, (f. 85*, 86*, 87*, 88*).—C. testâ ovatâ, crassâ, obtusiusculâ; dorso albido, fulvo et cærulescente nebulato et guttato; maculis fusco-nigrescentibus, hinc illic interspersis; hiatu dorsali angusto, lineari; basi longitudinaliter callosè univaricosâ, albâ; lateribus albicantibus; dentibus rotundis, brevibus, interstitiis vividè sanguineis.

Note.—This species is subject to great variations in form and colouring, among others, to one which has been recently published as distinct under the name of *C. Caledonicus*, Crosse, which is simply a produced and narrowed distortion, bearing the same relation to the normal form as *C. eglantina (Arabica)*, *C. Barthelemyi (moneta)*, and several others do to their respective species.

64. ERRONES, *Linn.*, (f. 156, 157, 158).—C. testâ oblongo-subpyriformi; dorso subdepresso, flavido, maculis minutis-

simis irregularibus flexuosis, maculâque magnâ centrali castaneâ picto; spirâ subumbilicatâ; marginibus terminis basique albidis; latere dextro subrotundatim marginato, extremitatibus posticè productis, posticis reflexis, labio acuminato elevato, anticis subacuminatis; basi convexâ; aperturâ subhianti; dentibus 15 et 16 circa, labii subdistantibus, columellæ anticè subdistantibus, plicâ columellari distanti, sulco angustissimo.

65. SUBVIRIDIS, *Reeve*, (f. 176, 177, 178, 358).—C. testâ quam *C. subviridis* magis inflatâ, pyriformi; terminis lateribus basique carneolis, extremitatibus subobscurè purpureo utrinque nebulatâ; umbilico spirali, conspicuo; labio supra columellam perelevato, acuminato, columellæ callo breviore; hiatu dorsali sublaterali; dentibus magis numerosis (20 et 21 circa).

Note.—Errones, subviridis. The white base and margins and more elongated form of the common species *errones* would, in general, be sufficient to prevent a comparison with *subviridis* being even suggested. The latter is much more pyriform, and strongly umbilicated at the spire. There is still a great similarity seen by comparing some varieties.

66. XANTHODON, *Gray*, (f. 196, 197, and Plate XXXVI. f. 513).—C. testâ elongatâ, subpyriformi, dorso elevato, cæruleo-viridescente, obscurè interruptè trifasciato, punctis minutis fulvo-olivaceis lentiginoso; lateribus fulvis, guttis nigrescentibus conspicuis ornatis; extremitatibus subproductis, subacuminatis; spirâ foveolatâ; basi subplanulatâ, fulvâ; dentibus saturatioribus, parvis, depressis, labii subdistantibus.

67. PICTA, *Gray*, (f. 179, 180, 320).—C. testâ elongatâ, subpyriformi; dorso elevato, cæruleo, purpureo-fusco, maculis castaneis quarum duabus lateralibus frequenter majoribus nebulato et picto; hiatu dorsali centrali, angusto; terminis purpureo nebulatis, leviter declivibus; lateribus leviter incrassatis, purpureo nebulatis, maculis rotundis conspicuis dorso et basi notatis; basi purpureo tinctâ, terminis acuminatis, approximatis; dentibus parvis, vix prominentibus.

68. NIGRO-PUNCTATA, *Gray*, (f. 94, 95).—C. testâ oblongo-ovatâ, anticè subcontractâ, dorso cærulescente, fulvo pallidè lentiginoso; lateribus marginatis et cum extremitatibus pro-

ductis, marginatis, subdepressis, creberrimè nigro-punctatis; basi pallidâ, planulatâ; aperturâ posticè recurvâ; dentibus acutiusculis.

69. SANGUINOLENTA, *Gmel.*, (f. 194, 195).—C. testâ *C. xanthodonti* simili, magis depressâ, ad terminos magis obtusâ, basi lateribusque punctis purpureis notatâ; dentibus magis rotundis, cum interstitiis æqualibus, labio posticè columellam superante.

Note.—Xanthodon, picta, nigro-punctata, sanguinolenta. Perhaps the most distinct of these is *nigro-punctata*, whose flattened base, sharp-cut teeth, laterally-depressed ends, latero-ventral specks, and terminal black patches enable it to stand alone. *Picta*, in all its varieties, is known by its peculiar marbled colouring, the deep, sharply-defined chestnut spots or hieroglyphic marking being concentrated in two patches on the central zone of the back. This was a very rare shell, unknown in good condition till a few years since, when we procured a large number of brilliant varieties from Cape de Verde Island. *Xanthodon* is distinguished from *sanguinolenta* on one hand, and from *zonata* on the other, by its small, depressed, distinctly-coloured teeth. The specimen figured on the last Plate is abnormally large and inflated, and, but for the teeth, resembles *zonata*. *Sanguinolenta* has a depressed form, obtuse at the ends, and purple spots extending over nearly the whole base.

70. SOWERBYI, *Kiener*, (f. 79, 80).—C. testâ oblongo-subpyriformi, subumbilicatâ; dorso cærulescente, obscurissimè trifasciato, maculis inæqualibus castaneo-fuscis creberrimè picto; extremitatibus productis, labii supra columellam elevatâ; basi extremitatibusque fulvo-rubescentibus, ad latera nigro-punctatis; dentibus albidis, circa 18 et 22, rotundis, brevibus.

71. ZONATA, *Chemn.*, (f. 126, 127).—C. testâ quam *C. Sowerbyi* breviori; dorso elevato, subgibboso, zonis flammulatis picto; terminis subplanulatis, basi planulatâ; dentibus tenuioribus, interstitiis latioribus.

72. NEBULOSA, *Kiener*, (f. 198, 199, 354, 355, 356, 514, 515).—C. testâ pyriformi, obtusâ; dorso grisco, fusco seu castaneo nebulato, maculis castaneis irregularibus notato, basi lateribusque pallidè roseis purpureo maculatis et nebulatis, callo basali versus medium dorsi expanso; extremitatibus callosis,

obtusis; basi convexâ; aperturâ sinuatâ; dentibus rotundis, brevibus, circa 17 et 18; variat interstitiis dentium et extremitatibus vividè roseis.

73. LENTIGINOSA, *Gray*, (f. 151, 152, 153).—C. testâ quam *C. Sowerbyi* breviore, magis gibbosâ, punctis sparsioribus; extremitatibus crassis, latis, lateraliter dorso foveolatim depressis; aperturâ latiusculâ; dentibus paucioribus (circa 15 tantum), distantibus, elongatis.

Note.—Sowerbyi (*maculata*), *zonata*, *nebulosa*, and *lentiginosa*. A history of the synonymy of the first is given by Reeve, and amounts to this, namely, that Gray intended to name the shell *maculata*, but withdrew that name on the supposed discovery of its identity with *zonata*. Kiener distinguishes the two species, not in his plates, but in the text; and as in the meantime the name *maculata* had been applied by Barnes to a variety of *reticulata*, it was dropped, and the one above was given. As compared with *Sowerbyi*, *zonata* is a much shorter and more gibbous shell, with a more flattened base and extremities; teeth narrower, interstices wider; aperture wider. As for the zones, their appearance, more or less distinct, depends upon the stage of development. *Lentiginosa* has some resemblance to *zonata*, but the ends are thicker, and the teeth much fewer and longer. Both it and *nebulosa* are much more obtuse at the extremities than *zonata*, and, on the whole, the four species may be usefully kept apart.

The following may be united under the name *nebulosa*:—f. 198, 199, the normal form and colour as type; f. 354, 355, a brilliant little shell, unnamed in the British Museum, clearly marked, rosy at the lips and between the teeth; f. 356, a larger shell, of which there are several specimens in the British Museum under the name of *Surinamensis*. They all have a similar thickness at the extremities, and in all the basal enamel is extended over the sides, so as to confine the dorsal area to a narrow disk.

74. SPADICEA, *Swains.*, (f. 81, 82).—C. testâ pyriformi; extremitatibus crassis, productis, rotundis; dorso spadiceo, ad latera ustulato-fusco nebulato; lateribus roseo-subcinereo-albido; basi rotundâ; aperturâ latâ; dentibus utrinque circa 20, rotundis, brevibus.

Many specimens are now known, pretty uniform in the peculiar style of colouring, which, nevertheless, has an acci-

dental or abnormal appearance. The form is exceedingly like that of *Sowerbyi*, but the ends are more thickened and produced.

75. ONYX, *Linn.*, (f. 209–212).—C. testâ pyriformi, umbilicatâ, fasciis tribus latissimis zonatâ, fusco-nigricante; extremitatibus, lateribus, basique saturatioribus, hiatu dorsali sinuato; basi convexâ; columellâ posticè brevissimâ; aperturâ subhianti, posticè retrorsâ; labio posticè elevato; dentibus rotundis, crassis, circa 18 et 19; variat dorso lacteo, lateribus aurantio marginatis, variat etiam omnino pallidè fulvo.

76. PYRUM, *Gmel.*, (f. 202–205).—C. testâ quam *C. onyx* angustiori, extremitatibus obtusioribus, ad spiram haud umbilicatâ, colore fusco-aurantio; dorso castaneo, variegato.

77. PHYSIS, *Brocchi*, (f. 200, 201).—C. testâ quam *C. pyrum* breviori, tenuiori; aperturâ angustiori; dentibus minutissimis; basi albidâ; lateribus et extremitatibus fulvo-aurantiis; dorso cærulescente, maculis castaneis irregularibus lentginoso.

Note.—Onyx, pyrum, physis. For some time I have tried to establish a collateral distinction, by which the pale fawn variety of *onyx* might be separated from the two normal conditions. The slopes of the back towards the ends appeared to be more gradual, the ends thicker, and the umbilicus less distinct; but an examination of intermediate forms in Miss Saul's collection, subsequently convinced me that the three varieties must remain united under one specific name. I have described the dark brown shell as the type, because probably the normal condition. *Pyrum* may be distinguished at a glance, although it is difficult to name absolute characters. It is a much less ventricose shell, with more obtuse ends, and no distinct umbilicus. *Physis* is a shorter shell, and at once distinguished from *onyx* and *pyrum*, by the narrow aperture and minute teeth.

78. WALKERI, *Gray*, (f. 123, 124, 125, 536).—C. testâ oblongo-pyriformi, umbilicatâ, depressiusculâ; dorso cæruleo-albicante, trizonato, fasciis undato-maculatis, punctis minutissimis lentiginoso; lateribus subflavis, guttis nigro-fuscis sparsim notatis, extremitatibus rotundis, labii posticâ productâ, columellæ posticâ brevi rotundâ, dentium interstitiis basique purpureis.

Note.—A little in form, and something in the delicacy of colouring, places this shell not far from *pulchella* and *pyri-*

formis in the series as to general appearance, although it is very far from either in most of its specific characters. A specimen from New Caledonia, with a chestnut-coloured base, believed to represent *Bregeriana*, Crosse, is figured in the last plate, but I cannot recognize in it anything more than a variety of our present species.

79. PULCHELLA, *Swains.*, (f. 148–150).—C. testâ eleganter pyriformi, anticè productâ et attenuatâ; termino postico producto, umbilicato; dorso superne ventricoso, maculis semilunaribus trifasciato, nonnunquam maculis permagnis subcentralibus picto, omnino minutissimè punctato; lateribus albis, rubro-fusco guttatis; basi rotundâ; columellâ brevi, dentibus rubro-fuscis per basim continuis ornatâ; labio utrinque acuminato, posticè retrorsum arcuato, columellam superante; dentibus fuscis, dimidiatim continuatis.

80. PYRIFORMIS, *Gray*, (f. 145, 146, 147).—C. testâ *C. pulchellæ* affini, anticè haud tantum attenuatâ; dentibus labii brevibus, rotundis, albis, columellæ medianis rubris linearibus brevibus.

Note.—Pulchella, pyriformis. The anterior extremity is not so attenuated in *pyriformis* as in *pulchella*, and the teeth on the outer lip are rounded and white as in ordinary cowries; on the middle of the columella, however, the teeth are linear and lengthened, as in *pulchella*, but in very much less degree.

81. BARCLAYI, *Reeve*, (f. 91, 92).—C. testâ parvâ, pyramidatâ, ventricosâ, pallidè fulvâ, dorso punctis minutis rufescentibus aspersâ; extremitatibus acuminatis, productis, posticâ supra spiram foveolatâ, anticâ attenuatâ utrinque depressâ; basi convexâ, extremitatibus angustis varicosis; aperturâ angustatâ; dentibus prominentibus, columellæ circa 21 posticis brevibus anticis elongatis, labii circa 24 elongatis elevatis crebris, interstitiis valde profundis; labio posticè valde elevato, columellam superante.

Note.—This beautiful shell, unique in the collection of Miss Saul, was brought by Sir D. Barclay from the island of Diego Garcia, of the Mauritius. It is placed in this part of the series on account of its general form; but its characters are well marked and very peculiar.

82. AUBREYANA, *Jousseaume*, (f. 529, 530).—"C. testa piriformis, solida, polita, in mediâ ventricosa; anticè et posticè attenuata, supra luteo-alba, maculis fulvis variegata,

margine basique luteo; aperturâ angustiore flexuosâ; utroque latere regulariter dentatis; dentibus elongatis, interstitiis excavatis."

Note.—From the description given, I placed this shell here as its probable position in the series. The drawing subsequently received shows that it is a near ally of *bicallosa*, if not a very large specimen of the same, with the callosities unformed or partially obliterated. In the drawing, however, there are no traces of the marginal pits characteristic of the A** group.

83. SAULÆ, *Gask.*, (f. 85, 86).—C. testâ oblongo-ovatâ, anticè subattenuatâ, fulvescente fusco punctulatâ, maculâ magnâ medianâ dorsali, maculisque parvis lateribus castaneis; basi subrotundâ, pallescente; aperturâ angustâ, subflexuosâ, anticè latiusculâ; columellâ posticè subgibbosâ; dentibus prominulis, albidis, interstitiis aurantiacis; extremitatibus prominentibus, subreflexis; marginibus prominentibus, subangulatis; spirâ profundè umbilicatâ.

84. GRACILIS, *Gask.*, (f. 315, 316, 317).—C. testâ *C. Saulæ* simili, sed magis pyriformi, sulco columellari angusto; dentibus tenuioribus, punctis basalibus sparsis, dorsalibus nullis; maculâ dorsali nullâ.

Note.—*Saulæ* and *gracilis.*—There is no danger of confounding these two shells, although somewhat similar in form. In *Saulæ* there is no distinct columellar groove, it is less pyriform than *gracilis,* and is marked by a conspicuous dorsal spot.

85. UNDATA, *Lamk.*, (f. 131–134).—C. testâ subpyriformi, ventricosâ; dorso violaceo-castaneo, zonis duabus aut pluribus undulato-albis ornato; lateribus basique albis, punctis paucis nigricantibus notatis; dentibus brevibus, validis, labio columellam posticè superante, columellâ posticè retrorsâ, callosâ.

86. ZICZAC, *Linn.*, (f. 135–138).—C. testâ quam *C. undata* minori, angustiori, notis linearibus flexuosis, et zonis pallidè flavescentibus; basi et lateribus rufo-aurantiis, nigro vividè punctatis; dentibus tenuioribus.

87. LUTEA, *Gron.*, (f. 142–144).—C. testâ *C. undatæ* simili, magis elongatâ; dorso fusco-grisescente, fasciis tribus latis zonato, punctis luteo-fuscis irregulariter creberrimè asperso; basi lateribusque creberrimè punctatis; aperturâ angustiori, rectiusculâ; dentibus tenuioribus; variat zonis conspicuis, punctis minutis sparsis.

88. CONTAMINATA, *Gray*, (f. 331, 332).—C. testâ quam *C. lutea* magis cylindricâ, minori, basi aurantiâ, punctis sparsis; dentibus minutissimis; dorso pallidè purpureo nebulato, sparsim punctato, maculâ magnâ irregulari latero-medianâ picto.

Note.—Undata, ziczac, lutea, contaminata. The differences between these species are too obvious to need description. The name *C. lutea* was originally given to the well-known variety in which the zones are conspicuous and the lentiginous markings few and small, but that being probably a case of partially developed colouring, it is right to regard the fully-coloured shell, which has been named *Humphreysii*, as the type of *lutea*. *Contaminata* is small, not quite so pyriform as *lutea*. It has an orange base, with few spots, and on the back a large chestnut blotch.

89. GOODALLII, *Gray*, (f. 309, 310).—C. testâ parvâ, ovato-subpyriformi, pallidâ; extremitatibus productis, margine reflexo, laterali sparsim punctato; dorso maculâ magnâ castaneâ irregulariter perforatâ picto; dentibus minutissimis.

90. FUSCO-MACULATA, *Gray, ms.*, (f. 372, 373).—C. testâ *Goodallii* simili, sed magis cylindricâ; lateribus magis depressis, basi planulatâ.

91. ASELLUS, *Linn.*, (f. 206, 207, 327*).—C. testâ oblongo-ovatâ, eburneâ; dorso fasciis tribus latis nigro-fuscis ornato; lateribus vix marginatis; extremitatibus obtusis, incrassatis, reflexo-marginatis; dentibus obtusis, labii elongatiusculis.

92. CLANDESTINA, *Linn.*, (f. 139, 140, 141, 534).—C. testâ ovatâ, umbilicatâ, lacteâ; dorso subincrassato, lineis rufis exilissimis hinc-illic convergentibus transversis ornato; dentibus validis, labii subelongatis.

Note.—Goodallii, fusco-maculata, asellus, clandestina. The two latter require no distinguishing remarks; and *fusco-maculata*, although similarly marked, has a flattened base, distinguishing it at once from *Goodallii*.

93. PUNCTATA, *Linn.*, (f. 278, 280, 281).—C. testâ ovato-subpyriformi, lutescenti; dorso punctis fuscis conspicuis rotundis asperso; terminis acuminatim productis, depresso-marginatis, posticis reflexis; dentibus parvis, labii subelongatis, columellæ depressis linearibus; plicâ columellari brevi, callo postico crassiusculo.

94. STERCUS-MUSCARUM, *Lamk.*, (f. 363–365).—C. testâ *C. punctatæ* simillimâ; terminis magis acuminatis; dentibus tennioribus, magis numerosis punctis minutissimis; columellæ callo postico.

95. TRIZONATA, *Sowb.* (f. 361, 362).—C. testâ *C. punctatæ* simili, magis cylindricâ; dentibus minoribus; dorso pallidè castaneo trizonato.

Note.—Punctata, stercus-muscarum, trizonata. The two first are pyriform and closely allied. The dots in *stercus-muscarum* are uniformly finer, and the teeth smaller and more numerous than in *punctata*. The third species is named from a specimen in the collection of Miss Saul, who also has a young shell, probably of the same species, here named *trizonata*. It is more cylindrical and solid than *stercus-muscarum*, which it resembles in the smallness of the teeth.

96. PUNCTULATA, *Gray*, (f. 154, 155).—C. testâ subgloboso-ovatâ, crassâ, solidâ, terminis obtusis, vix emarginatis; dorso elevato, subcæruleo olivaceo-fusco creberrimè lentiginoso, medio strigis hieroglyphicis notato, liueâ centrali pallidâ, callo laterali super dorsum utrinque expanso; lateribus subdepressis, fumeo-fulvis, guttis nigris aspersis; basi planiusculâ, subcarneâ, ad latera maculis rotundis aspersâ; aperturâ subcentrali, posticè recurvâ; columellâ breviusculâ, dentibus circa 14 brevibus obtusis, plicâ anticâ conspicuâ subremotâ; labio lato, dentibus circa 18 brevibus acutiusculis.

97. PALLIDA, *Gray*, (f. 159, 160, 357).—C. testâ subgloboso-pyriformi, solidâ; extremitatibus et latere dextro angustè marginatis; terminis reflexis, excavatis; dorso elevato, subcæruleo fusco-olivaceo creberrimè punctato, medio interdum maculâ castaneâ magnâ picto; basi pallidè fulvâ, subrotundâ, leviter punctatâ; aperturâ tortuâ, posticè retrorsâ; labio angusto, posticè elevato, recurvo, acuminato.

98. MACULA, *A. Adams.*, (f. 379, 380, 381).—C. testâ inter *C. pallidam* et *C. fimbriatam* intermediâ, quam *C. pallida* magis depressâ; aperturâ rectiusculâ, terminis magis obtusis; quam *C. fimbriata* magis pyriformi; aperturâ magis sinuosâ, terminis magis acuminatis; punctis lateralibus conspicuis, maculâ dorsali medianâ conspicuâ.

99. FIMBRIATA, *Gmel.*, (f. 387–391).—C. testâ subcylin-

dracеâ, depressâ, basi complanatâ, lateribus punctatis, extremitatibus obtusis latis maculâ conspicuâ utrinque ornatis; dorso roseo vel griseo, seriatim flammulis undulatis nebulato, punctis minutissimis asperso; aperturâ rectâ, latâ, canalibus latis haud profundis; labio vix incurvo; dentibus tenuibus, subelongatis; columellâ ad terminos callosâ; dentibus medianis minoribus.

100. MICRODON, *Gray*, (f. 385, 386).—C. testâ *C. fimbriatæ* affini, sed subpyriformi, extremitatibus acuminatis; aperturâ angustiori, rectiusculâ; dentibus minutissimis.

Note.—Punctulata, pallida, macula, fimbriata, microdon. There are cypræologists who claim to trace an unbroken line of gradation through varieties from the first to the last of these; but I have generally thought I could discover a good break here and there in the most carefully-selected series. The manner in which the lateral deposits are spread over the back in *punctulata* places it, in fact, much nearer the *Arabica* group than to *pallida*. *Macula* is intermediate between *pallida* and *fimbriata*. It is less pyriform than the former, and more so than the latter; the extremities are less produced, and less really reflected; the aperture *much* less curved posteriorly, and the base more flattened than in *pallida*, and the converse in every case with regard to *fimbriata*. The latter is remarkable for wideness and straightness of aperture, and broad openness of extremities, while *microdon*, which at first sight resembles the small, pinky, purple-tipped form of *fimbriata*, is narrower, has the ends produced and contracted, the mouth narrow and sinuous, and the teeth very small.

101. ANGUSTATA, *Gmel.* (f. 296, 297).—C. testâ pyriformi, ventricosâ, tenuiusculâ; basi albidâ, subcomplanatâ; lateribus conspicuè punctis magnis confusis pictâ; aperturâ latiusculâ, posticè recurvâ; labio retrorso, elevato, posticè columellam superante; dorso elevato; lateribus declivibus, sinistro emarginato, latere dextro angustatim marginato, punctato, medio saturatè fusco-purpurascente; extremitatibus obtusiusculis; dentibus numerosis, tenuibus.

Var. testâ pallidè fulvâ, immaculatâ, vel flammulis aurantiis in seriebus tribus pictâ. (F. 289.)

102. COMPTONI, *Gray*, (f. 292–295).—C. testâ *C. angustatæ* affini, sed marginibus dorso concavo-depressis; basi obscurè fusco; labio posticè elevatim angulato, infra angulum depresso.

103. DECLIVIS, *Sowb.*, (f. 287, 328*, 329).—C. testâ solidâ, *C. angustatæ* affini, magis pyriformi, anticè declivi; terminis magis deflexis; basi magis convexâ; aperturâ rectiusculâ; dorso roseo-fulvo, maculis fuscis parvis piperito; punctis lateralibus minoribus.

104. PIPERITA, *Sol.*, (f. 285, 286, and var. *bicolor*, f. 288, 289, 533).—C. testâ *C. angustatæ* affini, tenuiore, elongato-subcylindraceâ, roseo-fulvâ, maculis parvis piperitâ; dorso quadrifasciato, seu flammulis aurantiis in seriebus tribus pictâ.

105. PULICARIA, *Reeve*, (f. 290, 291).—Testâ *C. angustatæ* affini, *C. piperitæ* simili, sed angustissimâ, cylindricâ, tenuissimâ, sulco columellari expanso.

Note.—Angustata, Comptoni, declivis, piperita (bicolor), pulicaria. As these are all probably of one specific origin, their separation becomes little more than a question of convenience. The distinctions above named are, however, reasonably palpable, and it is not very difficult to sort a number of mixed specimens according to them. The shell generally received as the *angustata* of Gmelin happens to be the broadest of all, but the name may refer to the outer lip, which is narrow in the whole group, or to the reflected dextral margin, which is less spread over the back than in most cowries. *Comptoni* is distinguished by a peculiar angle and depression under it in the outer lip, a nut-brown and convex base, and concave depressions in the margins. *Declivis* is a more solid shell, with a peculiar deflexion of the anterior extremity, which slopes from the back, and it is of a light colour, sprinkled over the back. *Piperita* is coloured in the same manner, but is more cylindrical than the preceding species, with a more convex base. The variety *bicolor* has three rows of angular flame-like markings; so has also the singular shell, f. 289, from Miss Saul's collection, which, in other characters, resembles *angustata*. *Pulicaria* is quite a cylindrical shell, with depressed back, otherwise resembling *piperita*, excepting that the lower part of the columellar groove is expanded.

A*. Group 5. *South-African species, with wide apertures; without margin on the left side.*

106. ALGOENSIS, *Gray*, (f. 311, 312).—C. testâ rotundato-pyriformi, pallidè fulvâ; lateribus dorsoque rubido-fusco maculatis, latere dextro terminisque angustè marginato;

aperturâ latâ; columellâ posticè brevissimâ, dentibus minutissimis; labio angusto, posticè elevatim producto, dentibus 18 tenuibus elongatis subdistantibus.

107. EDENTULA, *Sowb.*, (f. 313, 314).—C. testâ *Algoensi* affini, terminis magis productis, posticè concavo-depressâ; columellâ edentulâ, labio obsoletissimè dentato; dorso subcinereo, maculis castaneis magnis picto.

Note.—Algoensis and *edentula*. The latter, besides being nearly or wholly toothless, has a shorter body, and more produced and depressed ends and margins than the former. Its colouring is also more bold, the back being marked by large, distinct blotches.

108. SIMILIS, *Gray*, (f. 300, 301).—C. testâ ovato-subpyriformi, ventricosâ, pallidâ, crassiusculâ, latere dextro terminisque marginatis; marginibus incrassatis, angustis; dorso posticè depresso, vix umbilicato, anticè callo rotundato marginato; basi subconvexâ; columellâ posticè brevi, anticè contractâ, dentibus depressis brevibus supra medium super basim interdum extensis, ad terminum anticum irregulariter elongatis; aperturâ latâ; labio angusto, posticè elevato, anticè infra medium incurvo, dentibus 21 elongatis tenuibus depressis distantibus.

109. CASTANEA, *Higgins*, (f. 302, 303).—C. testâ *C. simili* affini, sed pyriformi, posticè umbilicatâ; terminis magis productis; columellæ dentibus irregulariter alternatis; labii dentibus magis numerosis (26 circa), elongatis, castaneis, nonnunquam intermediis; dorso castaneo interruptim picto.

Note.—Similis and *castanea*. The new shell described by Mr. Higgins has a curiously-interrupted painting of chestnut, which *similis* may also have possessed, and the teeth of the outer lip are coloured, as those of *similis* may also have been, no specimens of the latter having been obtained in a living state. But the pearl-like shape, the umbilical depression, the greater number of labial teeth, and possibly the alternating disposition of the columellar teeth seem to indicate something more like specific distinctness of character in *castanea*, and are consistent in all the specimens we have seen.

110. FUSCO-DENTATA, *Gray*, (f. 298, 299).—C. testâ oblongo-subpyriformi, subcinereo-fulvâ, latere dextro angustè marginato; extremitatibus productis, incrassatis, posticâ profundè

excavatâ ; dorso pallidè quadratim maculato, posticè umbilicato, anticè subsulcato; basi subcomplanatâ; columellâ brevi, obtusâ, anticè contractâ, posticè callosâ, brevi, dentibus depressis castaneis sinuatis elongatis per basin currentibus; aperturâ latiusculâ ; labio posticè elevato, columellam superante, recurvo, dentibus elongatis depressis, nonnunquam intermediis, ad marginem acutis.

111. CAPENSIS, *Gray*, (f. 306, 307, 308).—C. testâ ovato-pyriformi, profundè umbilicatâ, pallidè fuscâ, maculis castaneis dorso ornatâ; latere dextro depresso, marginato ; margine ad terminum posticum rotundato ; basi depressâ ; columellâ anticè concavâ ; margine dentato ; dorso basique liris rugæformibus, numerosis, labri dentes versus convergentibus, striatis ; labio posticè elevato, semilunari ; dentibus depressis, ad marginem internum paucioribus, ad marginem externum duplicatis divergentibus.

Note.—Fusco-dentata and *Capensis*. The similarity in form and in the dentition of the outer lip, is remarkable in these two S. African shells, although the transverse fine ridges crossing the base and back in *Capensis*, not only separate it specifically, but, as some think, generically from the rest of the group. In that respect it forms a connecting link between the *Triviæ* and the rest of the cowries.

A**. *Latero-dorsal margins lirated or pitted.*

112. CRIBRARIA, *Linn.*, (f. 161–164).—C. testâ oblongo-subovatâ, solidâ, politissimâ, albâ ; dorso subdepresso, vividè castaneo-aurantio foramiuibus rotundis conspicuis magnis perforato picto ; terminis obtusis, reflexis, ad latera crenato-foveolatis, posticis inæqualibus ; latere dextro albo, reflexo, raro punctis castaneis ornato ; basi incrassatâ, convexâ ; dentibus circa 20 et 21, validis, rotundis, columellæ medio minoribus, anticis 4 majoribus tumidis, interstitiis profundis, plicâ terminali remotâ, subtruncatâ ; aperturâ latâ ; labio angusto, incrassato, posticè elevato, anticè subtruncato.

113. PEASEI, *ms.*, (f. 167, 168).—C. testâ *C. cribrariæ* affini ; testâ tenuiori, pallidiori ; terminis angustis, approximatis, acuminatis, foraminibus magis approximatis.

114. ESONTROPIA, *Duclos*, (f. 169, 170, 171).—C. testâ *C. cribrariæ* affini, crassiori, breviori ; dorso ad medium elevato ;

lateribus magis expanso-depressis, lateribus minutè punctatis.

115. CRIBELLUM, *Gask.*, (f. 165, 166).—C. testâ *C. cribrariæ* affini, magis cylindraceâ; dorso depresso, latere dextro rectiusculo; basi planulatâ, ad medium roscâ, pallidè fasciatâ; dentibus columellæ parvis, sulco columellari nullo, plicâ terminali prominente; aperturâ latiore; labio planulato; dentibus pancioribus.

116. GASKOINII, *Reeve*, (f. 352, 353).—C. testâ *C. cribrariæ* affini, magis ovatâ; basi vix incrassatâ, punctis lateralibus minutis, foraminibus minoribus annulatim pallidè circumscriptis; dentibus minoribus.

Note.—Cribraria, Peasei, esontropia, cribellum, Gaskoinii. These may be only varieties of one essential species, but they are distinguishable. There is a character of thickness in the white enamel of the base, and a swelling in the teeth in *cribraria*, the typical form of the group, which partly distinguishes it from the others. It is more cylindrical than any of them, excepting *cribellum*, which has much fewer teeth, a still more cylindrical form, a more flattened base, and no columellar ledge or groove beyond the surface; the mouth, in consequence, appears wider. Mr. Reeve has figured a side-spotted variety of *cribraria* for *esontropia*, but the true *esontropia* is a broader, heavier, more pyriform shell, with ends more pointed and approximate. The Sandwich Island shell, now named *Peasei* in collections, has been catalogued in sales, etc., as *Gaskoinii;* but the true *Gaskoinii* is a much more delicately and finely marked and sculptured shell. The aperture is narrower, teeth finer, ends much more pointed and close, lateral and basal dots more minute, sieve-like holes in the dorsal coloring smaller and closer, with faintly ringed margins. *Peasei* is very much lighter and thinner than the true *cribraria*, with narrower teeth, more pointed ends, and generally more rounded form. The white disks in all these and the two following species, are not depositions, but perforations in the layer of golden-chestnut colour.

117. CUMINGII, *Gray*, (f. 349, 350, 351).—C. testâ oblongo-pyriformi, albâ, anticè attenuatâ; dorso colore fulvescente-castaneo foraminibus rotundis annulatis albis parviusculis perforato picto; extremitatibus angustis, acuminatis, ad latera crenulatim-fovcolatis, nigro-lineatis; latere dextro

albo, reflexo, punctis magnis nigricantibus notato ; basi subplanulatâ, lateraliter nigro-punctatâ ; aperturâ augustâ ; columellâ utrinque acuminatâ ; dentibus parvis numerosissimis, plicâ terminali prominente, sulco columellari angustato, anticè acutè dentato ; labio subcomplanato, angusto ; dentibus elongatis, circa 30.

118. Beckii, *Gask.*, (f. 341, 342).—C. testâ oblongâ, utrinque productâ, subrostratâ, subumbilicatâ, supernè pallidè fulvâ, punctis subocellaribus helvolis sparsâ ; margine supra subcrenato, basique albis ; labri dentibus crassiusculis, posterius lineolâ helvolâ notatis, columellæ gracilioribus, in culmen rectilineum terminantibus, medio obsoletioribus ; sulco columellari profundo, recto, lævi, anterius et infernè denticulato.

Note.—Cumingii (*compta*), *Beckii.* These two are associated by a strong similarity in form, the acuteness of the extremities, and divergence of the labial teeth. *Beckii* is a small shell, with delicate brown lines radiating with the teeth and on the lateral margins of the extremities. It has white cribrarious spots, but they are ocellated with brown centres. There is nothing to distinguish the variety named *compta* from *Cumingii*,—the branch from the centre of the dorsal scar being accidental or simply varietal.

119. margarita, *Sol.*, (f. 337, 338).—C. testâ parvâ, pyriformi, pallidè stramineâ, maculis albis rotundis inæqualibus ad dorsum pictâ, lineâ dorsali conspicuâ ; extremitatibus acuminatis, posticâ callosâ ; basi convexâ ; aperturâ angustissimâ, tortuâ ; dentibus acutis, columellæ brevibus, medianis brevissimis ; labio posticè anticeque peculiariter compressâ, dentibus elongatis radiantibus, medio lato dentibus brevissimis.

Note.—The teeth radiate elegantly from the more central part of the disk, and the outer lip is peculiarly pinched up, as it were, at the extremities. The dorsal callosity at the posterior termination, and sometimes in the general character, suggests an affinity with the preceding species.

120. guttata, *Gray*, (f. 104, 105).—C. testâ pyriformi, tenuiusculâ, inflatâ, pallidâ ; dorso fulvo, guttis albescentibus rotundis magnis et parvis asperso, hiatu albido laterali ; extremitatibus productis, apertis, reflexis, medio et ad latera liris castaneis super marginem reflexis radiatis ; basi subconcavâ ; aperturâ latâ, intus cæruleâ, dentibus castaneis

super basim utrinque extensis, hinc illic bifurcatis; columellæ medio in laminam incrassatam conjunctis, verius extremitates utrinque prominentibus.

Note.—The dorsal view of this remarkable shell bears a singular resemblance in form to *Lamarckii*, or rather *eburnea*, although it is much larger and more boldly sculptured at the ends; but, on a view of the base, it is at once perceived that the species is one of those that stand quite alone. The singular manner in which the chestnut-coloured teeth are continued over the base and margins, and collected into a thickened irregular sort of platform in the middle, is not even suggestively approached in any other species.

121. LAMARCKII, *Gray*, (f. 106, 107).—C. testâ pyriformi, crassiusculâ, inflatâ; dorso fulvo, maculis rotundis albis quarum nonnullis punctis centralibus ocellatis numerosis asperso; lateribus castaneo punctatis; extremitatibus liris fuscis elevatis crenulatim-foveolatis; basi albâ; aperturâ latâ, sinuatâ, anticè subexpansâ, intus purpurascente; dentibus circa 16 et 18 angustis, solidiusculis, interstitiis latis; extremitatibus acuminatis.

122. MILIARIS, *Gmel.*, (f. 109).—C. testâ *C. Lamarckianæ* affini, angustiori, semper immaculatâ; dorso fulvo-subviridi, albo perforato.

123. EBURNEA, *Barnes*, (f. 108).—C. testâ *C. Lamarckianæ* affini, magis conspicuè productâ, umbilicatâ, foveolatâ et dentatâ, semper albâ, immaculatâ.

Note.—Lamarckii, miliaris, eburnea. Probably varieties of the same species, but constant and decided enough to be usefully distinguished. No intermediates have been met with. Coincidently with the difference as to colour, it may be observed that *eburnea* is always more conspicuously umbilicated, produced and sculptured at the sides than *Lamarckii*. *Miliaris* is not only never spotted at the sides or ocellated at the back, but is constantly of a narrower form.

124. OCELLATA, *Linn.* (f. 102, 103, 243).—C. testâ ovato-depressâ, brevi; lateribus incrassatis, expansis, reflexis, extremitates versus crenulato-foveolatis; dorso rufescente, ocellis numerosis albis quorum nonnullis hic illic nigro-pupillatis ornato; basi lateribusque albidis, fusco punctatis; aperturâ flexuosâ; dentibus columellæ crassiusculis, labii acutis subelongatis, castaneo lineatis.

Note.—Our figure fails to do justice to the beauty of Mr. Walter's specimen with the large ocelli, in consequence of the intermediate parts being lithographed too darkly. The species has a very great resemblance to *Lamarckii*, but it is always more depressed, with the ends not produced. The base is spotted, and the teeth linearly marked.

125. TURDUS, *Lam.*, (f. 128, 129, 130).—C. testâ crassâ, subdepressâ, brevi, obtusâ, albidâ; dorso fusco-subviridi, punctis castaneis parvis creberrimè asperso; lateribus expansis, incrassatis, maculis castaneis rotundatis aspersis; extremitatibus obtusis, ad latera crenulatim foveolatis; basi subdepressâ, albâ; aperturâ latâ, anticè expansâ; dentibus circa 12 et 13, brevibus, subdistantibus; labio lato, infra medium expanso, ad terminum contracto.

Var. tenuior, subpyriformis; lateribus haud incrassatis. (F. 284.)

Note.—This well-known species has an affinity with *C. Lamarckii*, but the differences are too obvious to require description. The variety in which the side-thickening has not been developed is curious, but almost all the species are subject to similar variations in growth.

126. EROSA, *Linn.*, (f. 110–115).—C. testâ ovato-oblongâ, solidâ, subdepressâ; dorso aurantio-fulvo, punctis albis minutis creberrimè asperso, maculis castaneis paucis subobscurè picto; lateribus plerumque subexpansis, incrassatis, albis, ad extremitates reflexis liris castaneis, crenulatim foveolatis, maculâ magnâ quadratâ fusco-nigricaute in medio tinctis, castaneo-fusco punctatis; basi subcomplanatâ, albâ, nonnunquam punctis lineisque convergentibus rubro-castaneis notatâ; aperturâ latiusculâ, anticè expansâ, intus cæruleâ; dentibus circa 14 et 19, columellæ brevibus, labii prolongatis, labio ad margines terminorum crenulato.

Var. f. 113, lateribus immaculatis; f. 114, 115, basi lineatâ et punctatâ; dorso guttis annulato.

Note.—There is no species liable to be confounded with this, although it is subject to great variations.

127. LISTERI, *Gray*, (f. 116, 117, 241, 242).—C. testâ ovatâ, depressâ, subacuminatâ; dorso purpurascente, guttis annulatis perpaucis punctisque albis minutis creberrimis notatâ; lateribus basique purpureis, lineis punctisque saturatioribus ornatis; extremitatibus minutè crenulatim foveolatis; aper-

turâ sinuatâ, anticè expansâ; dentibus numerosis, breviusculis.

128. PORARIA, *Linn.*, (f. 236, 237).—C. testâ *C. Listeri* affini, parvâ, brevi, obtusâ; basi immaculatâ; labii dentibus brevioribus.

129. ALBUGINOSA, *Mawe*, (f. 256, 257, 517).—C. testâ *C. Listeri* affini, *C. porariæ* simili, majori, punctis albis interstitialibus nullis, guttis annulatis conspicuis; extremitatibus apertis; dentibus minutis.

Note.—Listeri, poraria, albuginosa. The three species are strongly inclined to purple colouring at the base and sides, and all have *annulated* ocelli on the back. The two first have minute white specks between the ocelli, but the last has not. The teeth in *albuginosa* are small. *Poraria* is a short, close-mouthed, obtuse-ended shell. It is not spotted like *Listeri* on the base, and its teeth are much shorter and more compact.

129*. MACANDREI, *Sowb.*, (f. 518*, 519).—See last page.

130. GANGRÆNOSA, *Soland.*, (f. 230–235; var. *labio-lineata*, Gask., 231.)—C. testâ ovato-subdepressâ, obtusâ, albido-subcæruleâ; dorso plus minusve olivaceo, punctis minutis albis ocellisque annulatis sparsis notato, apice sulcato; extremitatibus fuscis, maculâ nigro-castaneâ anticè et posticè pictis; lateribus marginatis, reflexis, crenulatim foveolatis; basi albâ, convexiusculâ; dentibus brevibus, circa 18 et 18, interstitiis angustis.

131. SPURCA, *Linn.*, (f. 118–122, et 516; var. *flaveola*, Linn., f. 121).—C. testâ *C. gangrænosæ* affini; lateribus punctatis, punctisque castaneis super ocellis albis depositis; labii dentibus magis distantibus; maculis prope extremitates nullis, nec terminis fuscis.

132. CERNICA, *Sowb.*, (f. 238, 239, 240).—C. testâ *C. gangrænosæ* et *C. spurcæ* affini, brevi; dorso elevato; dentibus parviusculis, maculis rotundis albis haud contaminatis.

Note.—Gangrænosa, spurca, cernica. All the varieties we have seen of *gangrænosa* are tinted with orange-brown, and have black, treacle-like spots at the ends, and the ocelli are annulated. The teeth are generally shorter and closer than in the following species. Fig. 233 represents a curious instance of white superdeposit of enamel covering all but the end blotches of colour. The characteristic of *C. spurca,*

as to colour, is the superdeposit of a yellow-brown spot on, or half over the white spots. This is seen even in the pale, short, tumid variety named *flaveola*; but in *cernica*, from the Mauritius, no trace of this appears; the spots are round and clear.

133. BICALLOSA, *Gray*, (f. 220, 221).—C. testâ ovato-pyriformi, rubido-crocatâ, solidâ, marginatâ; extremitatibus subacuminatis, callositate conspicuâ munitis, ad latera obscurè crenulatim foveolatis; dorso rotundo, castaneo variè maculato et nebulato; basi incrassatâ; aperturâ angustâ, flexuosâ; dentibus validis, super basim columellæ ad extremitates elongatis, labii 23 elongatis, interstitiis profundè excavatis; labio posticè elevato, anticè abbreviato, medio sinuatim producto.

Note.—This very rare shell is one of those that cannot be put beside any other for comparison, the callosities on the termino-dorsal arches, and other characters of form and sculpture, being quite peculiar. It has more affinity with *helvola* than with any other species.

134. HELVOLA, *Linn.*, (f. 214–217; var. pallidâ, tenui, f. 217).—C. testâ crassâ, depressâ, ovatâ; lateribus incrassatis, reflexis, crenato-foveolatis, crocato-fuscatis; extremitatibus plerumque violaceis, medio albescentibus; dorso fusco, ocellis numerosis albis maculisque castaneo-rubris sparso, colore supra marginem saturatiore; basi crocato-fuscâ; aperturâ angustâ; dentibus validis, circa 12 et 13, ad extremitates super basim extensis, medio breviusculis, interstitiis profundè inciso-excavatis; labio lato.

135. CITRINA, *Gray*, (f. 218, 219).—C. testâ *C. helvolæ* affini; dentibus 18, et 18 parvis, interstitiis haud profundis; lateribus haud incrassatis; extremitatibus acuminatis; labio angustato.

Note.—*Helvola* and *citrina*. The Sandwich Island form and colouring of *helvola* are like varieties from that locality of several other species. The colouring is pale yellowish, with the markings only dimly seen; the shell is thinner, and the sculpture sharper than in the common variety. *Citrina* is fully distinguished by the shallowness of the dental interstices, and the greater number of the teeth. The colouring is also much more simple. The white cribrarious holes left in the ground colouring of *helvola* are supplemented by superimposed specks of white, which is not the case in *citrina*.

A***. *Ribbed, or tuberculated, or allied to those that are so; columellar plait distinct.*

136. ADAMSONI, *Gray*, (f. 401, 402).—C. testâ parvâ, pyriformi, cancellatâ, fulvâ, maculis aurantiis polygonis 6 ad 7 ad dorsum pictâ; extremitatibus productis, labii supernè elevatâ acuminatâ incurvâ, sulco columellari angusto, plicâ terminali parvâ distinctâ.

Note.—This beautiful little species is not striated or ribbed in the same manner as the *Triviæ*, with which it has, indeed, little affinity. The ribs are spiral, and the terminal columellar plait and lobe are distinct.

137. PUSTULATA, *Lamk.*, (f. 396, 397; æt. juv. 398).—C. testâ ovatâ, fusco-cinereâ, ad dorsum pustulis aurantiis rotundis rubro-marginatis ornatâ; extremitatibus productis, approximatis; basi distanter albicostatâ, planatâ, cicatrice dorsali angustâ.

Note.—In the young state, the shell is spirally ribbed as in *C. Adamsoni*. The pustules only appear in adult shells.

138. STAPHYLÆA, *Linn.*, (f. 223–229 et 518).—C. testâ ovato-oblongâ, subdepressâ, crassiusculâ; dorso plerumque granuloso, interdum lævigato, granulis vel maculis rotundis albis; extremitatibus aurantio-fusco tinctis, productis, acutis sive obtusis, marginibus reflexis, foveolatis; basi subcomplanatâ; dentibus super basim omnino vel partim prolongatis.

Var. lævigata, pallida, tenuis, acuta; dentibus tenuibus, f. 225, 225; *fimbriatula*, f. 518.

Note.—No species is so widely variable as this. In f. 228, 229, it is a rounded, beaked shell, granulated all over at the back, and with the dental ridges completely crossing the base. In f. 223, 224, and 227, the *interstincta* of Wood, and the *limacina* of Lamarck, the middle teeth of the columellar lip stop suddenly before reaching halfway over. The pale, thin, sharp variety is from the Sandwich Islands. All these varieties, differing extremely in some specimens, yet pass imperceptibly into each other, so that it is impossible to separate them.

139. NUCLEUS, *Linn.*, (f. 399, 400).—C. testâ albâ, seu fulvo-rubescenti, ovatâ; extremitatibus productis; dorso elevato, irregulariter tuberculato, tuberculis intercostatis; basi subrotundâ, costellis transversis numerosis, ad marginem intermediis divergentibus, terminalibus distinctis divaricatis; aperturâ angustâ, cicatrice dorsali latiusculâ.

140. MADAGASCARIENSIS, *Gmel.* (f. 406–408).—C. testâ *nuclei* simili sed majori, magis depressâ; lateribus expansis; basi magis complanatâ, costellis distantibus elevatis; terminis obtusis.

Note.—*Nucleus* and *Madagascariensis.* The more flattened form and expanded sides of the latter, with the more distant basal riblets, are sufficient to distinguish it from the former.

141. CHILDRENI, *Gray* (f. 403–405).—C. testâ ovatâ, subcylindricâ, fulvâ, ad extremitates laminis exstantibus marginatâ; extremitatibus angustatis, productis, posticis truncatis; costellis transversis, ad lineam dorsalem plurimis continuis, alteris duplicatis; aperturâ angustissimâ.

Note.—The dorsal ribs do not radiate at each end as in *Triviæ*, nor are they quite spiral as in *Adamsoni.* The terminations of this shell are very peculiar, having wing-like lateral projections. In form, radiation of teeth, etc., it is nearly allied to the following species.

142. CICERCULA, *Linn.* (f. 343, 344, 345, 346).—C. testâ globosâ; dorso elevato, plus minusve granuloso, fusco-aurantio vel pallidè luteo, minutè punctato, interdum maculis magnis ornato; lineâ dorsali subconspicuâ; extremitatibus productis, callosis, acuminatis; basi subconvexâ; maculis quatuor castaneis plerumque pictâ; dentibus lincaribus, elongatis; aperturâ angustissimâ.

143. GLOBULUS, *Linn.* (f. 347, 348).—C. testâ *C. cicerculæ* affini, magis oblongo-cylindricâ; dorso lævigato; lineâ dorsali obsoletâ; basi immaculatâ.

Note.—*Cicercula, globulus. Cicercula* is sometimes granulated, and has four basal spots. It is more rounded than *globulus,* which is never granulated and has no basal spots.

144. CHRYSALIS, *Kien.*, (f. 335, 336).—C. testâ *C. cicerculæ* forsan affini, sed angustissimâ, pallidâ.

Note.—I do not know this shell, the figure of which I have copied, and only suppose it may be allied to *cicercula* or *globulus,* unless it has been described from a very young specimen of some well-known species.

145. ANNULATA, *Gray,* (f. 339, 340).—C. testâ ovato-globosâ, obtusè subrostratâ, pallidè fulvâ; dorso lateribusque maculis rotundis luteis annulatim circumscriptis inæqualibus pictis; aperturâ angustissimâ, subtortuâ; dentibus minutissimis.

Note.—In arranging the species according to their nearest affinities, it is difficult to find a place for this beautiful ring-painted shell, which, notwithstanding some general resemblance in form to *cicercula*, etc., presents a complete contrast to that species in the obtuseness of the closely converging extremities.

B. *No lobe or plait at end of columella. Dorsal ribs radiating from central line.*

Subgenus TRIVIA.

* *Narrow aperture, broad outer lip.*

146. RADIANS, *Lamk.*, (f. 420, 421, 422).—C. testâ ovato-subglobosâ, fusco-grisescenti vel subroseâ; margine dilatato; dorso subdepresso, medio maculâ magnâ notato; sulco mediano lato; costellis dorsalibus obscurè lentiginosis, validis distantibus, utrinque circa 10 ad sulcum in nodulos elevatos terminantibus, circa 7 intermediis ad latera desinentibus; basi subplanulatâ, costellis dentalibus et paucis intermediis validis, ad margines extensis; aperturâ latiusculâ; extremitatibus retusis; sulco columellari angusto dentato.

147. SOLANDRI, *Gray*, (f. 418, 419).—C. testâ *C. radianti* affini; dorso magis elevato; lateribus haud tantum dilatatis; basi magis convexâ; labii margine interno dentibus interstitialibus plurimis armato; nodulis costellarum minoribus.

148. COSTIS-PUNCTATA, *Gask.*, (f. 452, 453).—C. testâ *C. radianti* affini, costellis conspicuè lentiginosis, maculis dorsalibus plurimis, sulco angustiori; lateribus haud tantum dilatatis; basi rotundo, sulco columellari lato.

149. DEPAUPERATA, *Sowb.*, (f. 423, 424).—C. testâ *C. radianti* affini, depresso-globosâ, pallidâ, immaculatâ; costellis dorsalibus perpaucis, in sulcum medianum angustatum alternatim desinentibus, quarum plurimis prope sulcum tumidiusculis.

Note.—*Radians*, *Solandri*, *costis-punctata*, *depauperata*. The back of *Solandri* is much more elevated, and the sides not so much spread, as in *radians*. The base is rounder and a few short intermediate teeth on the inner edge of the outer lip, cause it to appear much more closely serrated. *Costis-punctata* also has a rounded base, but in other respects more

generally resembles *radians*. Its colour is that of the ordinary *pediculus*, and the spots on the back are divided; the ribs are also spotted and the dorsal groove is narrow. *Depauperata* is quite distinct. It has a narrow groove, in which the very few ribs, slightly swelled, but not tuberculated, meet alternately.

150. PEDICULUS, *Linn.*, (f. 429–438).—C. testâ ovato-subglobosâ, carneo-grisescente, vel subroseâ fuscescente super costas marmoratâ; dorso rotundo, maculis fuscis semipicto; costellis numerosis, subundatis, plurimis ad sulcum dorsalem in tuberculum parvum desinentibus, alteris interstitialibus; interstitiis granosis; sulco dorsali angusto, elongato, marginibus terminalibus lateralibusque subangulatim reflexis incrassatis; basi convexâ; columellâ utrinque varicosâ, sulco columellari lato.

Var. globosa, margiuibus crassissimis (f. 430).

Var. colore fusco-rubescenti, lateribus basique fumeo-purpureis; costellis paucioribus, basalibus albis, marginibus crassissimis elevatis.—*C. labiosa*, Gaskoin (f. 433, 434 et 435, typ.).

Var. parva, rubra.—*C. coccinella*, Lamk.

Var. costellis subcrenulatis, colore fumeo-fuscato; maculis dorsalibus tribus lateris dextri in maculam unam coalescentibus et expansis.—*C. cimex*, Hugh Owen (f. 436, 437, 438).

Note.—In this species the baso is turned upwards at the sides in a peculiar manner, so as to form a marginal ridge, as seen from the back. In the variety named *C. labiosa*, and afterwards acknowledged as a variety of *pediculus* by Mr. Gaskoin, this peculiarity is exaggerated, as is also the distance of the basal tooth-ridges. It is also of a different colour from the ordinary shell, and the ribs are smoother than usual in the species. These peculiarities happen to concur in Mr. Gaskoin's type specimen, which is unique, but they also occur separately or interchangeably, or in different degrees in many specimens and varieties. In var. *cimex* the tendency of the species to crenulation or waving in the dorsal ribs is exaggerated, and another peculiarity is, that on the right side of the back the usual three dark patches are amalgamated into one blotch covering one side.

151. MAUGERIÆ, *Gray*, (f. 450, 451).—C. testâ subpyriformi, ovatâ, fulvo-rosaceâ; dorso rotundo, maculis grandibus tribus medianis obscurè tincto; costellis tenuibus, subflexu-

osis, ad sulcum nodosis; sulco angusto; margine dextro reflexo, roseo; basi convexâ; columellâ anticè et posticè varicosâ; sulco columellari lato, dentato, anticè expanso; aperturâ latâ.

Note.— The specimen here figured from the collection of Miss Saul, is the finest known. It is described by Mr. Gray as intermediate between *australis* and *rosea*.

152. PISUM, *Gask.*, (f. 448, 449).—C. testâ sphæroidali, pallescente; costellis prominentibus, ex aperturâ ad lineam dorsalem decurrentibus et in lineam attenuatam terminantibus; dentibus prominentibus; sulco columellari lato; aperturâ latiusculâ, posticè flexuosâ; basi rotundatâ; margine externo incrassato, supra extremitates extenso; extremitatibus crassis; lineâ dorsali profundâ, ex extremitatibus posticis ad anticam testæ partem continuâ.

Note.—The type specimen from the collection of Mr. Taylor, late Gaskoin, is a pale coloured, but not a white shell. The ribs are disposed rather transversely, *i. e.* less than usually radiated, and terminate rather thinly at the dorsal groove, their ends intercalating alternately. The dorsal line is long.

153. SULCATA, *Gask.*, (f. 454, 455).—C. testâ ovato-globosâ, ventricosâ, albâ; basi rotundatâ; aperturâ latiusculâ, posticè incurvâ, canalibus profundis et latis; dentibus æqualibus; labii externi circa triginta, lateris columellaris viginti, supra columellam continuis, marginem internum serratum formantibus; costellis prominentibus, plerumque ad impressionem dorsalem terminantibus, pseudo-costellis ad utramque extremitatem circa decem; sulco columellari lato, profundo, margine externo prominente acuto; extremitatibus obtusis, crassis; spirâ conspicuâ; impressione dorsali conspicuâ.

Note.—*Sulcata* is very globose, with a slight dorsal depression, more coarsely ribbed than *formosa*, which has no dorsal groove. The posterior callus of the inner lip is peculiarly small and sharp, and the columellar sulcus curiously expanded. The type in Mr. Taylor's (late Gaskoin's) collection has rather the appearance of a partially formed shell.

154. PULEX, *Sol.*, (f. 492, 493, 494).—C. testâ ovato-subpyriformi, tenuiusculâ, ventricosâ; dorso fusco- vel cinereo-purpureo, medio lævigato vix sulcato, ad latera costellis albidis tenuibus radiatim lirato; spirâ frequenter conspicuâ;

et extremitatibus margine dorsali albis, reflexis ; basi albidâ, labio columellari posticè et anticè varice albo parvo prominente desinente, costis dentalibus subincrassatis ; labio albo, incrassato, medio subexpanso, dentibus ad marginem acutis ; sulco columellari angusto.

Note.—The most mature specimens have a smooth ribless region on the middle of the back, in the central line of which is a very slight depression.

155. SUFFUSA, *Gray* (f. 444, 445, 446, 447).—C. testâ oblongo-ovatâ, carneo-rosaceâ, tenui ; dorso subdepresso, ad medium bimaculato; costellis numerosissimis, crenulatis, lentiginosis, ad sulcum medianum plerumque desinentibus; sulco angustato; extremitatibus roseis, obtusis, margine dextro subreflexo ; basi subconvexo, columellâ utraque extremitate acutè varicosâ ; labio albo, minutè dentato.

Var. *C. pullata*, Owen, colore fumeo-fuscato ; dorso maculâ magnâ latere dextro tincto fusco suffuso, latere sinistro trimaculato (f. 446, 447).

156. PACIFICA, *Gray* (f. 441–443).—C. testâ *C. suffusæ* affini, graciliori ; extremitatibus magis productis, costellis tenuioribus, maculis dorsalibus senis.

157. QUADRIPUNCTATA, *Gray* (f. 460–463).—C. testâ *C. suffusæ* affini, roseâ ; dorso subdepresso ; sulco dorsali angustissimo, brevi ; costellis minutis acutis, magis divaricatis, ad sulcum desinentibus subangulatis, maculis castaneis rubris tribus vel quatuor parvis ; variat colore albo vel brunneo, variat etiam dorso immaculato.

158. AFFINIS, *Marratt* (f. 464, 465).—C. testâ pallidâ, *C. suffusæ* affini, *T. pacificæ* simili ; extremitatibus expansis et productis ; sulco dorsali nullo.

159. AUSTRALIS, *Lamk.* (f. 439, 440).—C. testâ *C. suffusæ* affini, majori, lævigatâ, pallidè carneâ ; costellis tenuibus, maculis dorsalibus conspicuis.

Note.—Suffusa (pullata), pacifica, quadripunctata, affinis, australis. In *pacifica* the ribs are finer, scarcely crenulated, and more radiating than in *suffusa*, while the extremities are more produced, and the form more attenuated. Although Mr. Owen possesses several specimens from the same locality of his *pullata*, showing the same peculiarity of the brown spots on the right side being amalgamated into a

single tint covering the whole right surface, as is also the case with his *cimex*,—I can see no collateral distinguishing character, and do not think this sufficient. The finely-ribbed *quadripunctata*, with its three or four little spots on the dorsal line, is conspicuously distinct. And Mr. Marratt's *affinis*, although resembling *pacifica* in form and character of ribs, etc., has no dorsal groove. *Australis* is the largest and smoothest shell of the group; the ribs fine, neither freckled nor crenulated. The margin is generally rose-tinted, and the brown spots on the back very distinct.

160. CICATROSA, *Sowb.* (f. 458, 459).—C. testâ albâ, parvâ, crassâ, subglobosâ, posticè subexpansâ, margine terminali postico crasso, lato; dorso subelevato; sulco tortuo, brevi, profundissimo; costellis crassiusculis, rotundis, divergentibus; basi subcomplanatâ; labio columellari brevi, utrinque calloso; costellis paucis, rotundis, crassis; sulco columellari profundo; labio posticè præcipuè latissimo, crasso.

Note.—Remarkable for its very deep dorsal sulcus and the posterior expansion of the lip.

161. NIVEA, *Gray* (f. 468, 469).—C. testâ globoso-ventricosâ, obtusâ, albâ, vix marginatâ; extremitatibus obtusis; dorso sulco elongato conspicuo mediano diviso, costis crassis undulato-subnodosis ad sulcum abruptè desinentibus armato; basi rotundâ, haud varicosâ; labio columellari brevi; sulco lato; labio lato, medio subdilatato.

162. ORYZA, *Lamk.* (f. 474–476).—C. testâ albâ, ovato-globosâ, ad latera vix marginatâ; extremitatibus plus minusve productis, obtusis; dorso medio leviter sulcato; costellis tenuibus, numerosis, plerumque per sulcum continuis, interstitiis granulatis; basi convexâ, columellâ utrinque subvaricosâ; labio medio dilatato.

163. SCABRIUSCULA, *Gray* (f. 472, 473).—C. testâ *C. oryzæ* affini; dorso magis elevato; costellis paucioribus, magis radiantibus; sulco dorsali brevi; extremitatibus subrostratis.

164. INSECTA, *Mighaels* (f. 477, 478, 479).—C. testâ *C. oryzæ* affini, parvâ, elongatâ, angustâ; extremitatibus haud tantum emarginatis.

165. GRANDO, *Gask.* (f. 470, 471).—C. testâ *C. oryzæ* affini, nitenti, multo magis globosâ; extremitatibus acuminatis;

costellis tenuioribus, numerosissimis; aperturâ angustissimâ, subspiraliter sinuatâ; columellæ varicibus terminalibus acutis, angustis, prominentibus.

166. VITRÆA, *Gask.* (f. 456, 457).—C. testâ *C. oryzæ* affini, *C. grandini* simili, etiam magis globosâ; extremitatibus haud productis; sulco profundo; costellis acutis, majoribus, ad sulcum subangulatis, alternatim partim interruptis; basi rotundâ, varicibus nullis.

167. GLOBOSA, *Gray,* (f. 466, 467, 524*).—C. testâ *C. oryzæ* affini, *C. vitreæ* simili, minutâ, globoso-brevissimâ; extremitatibus brevissimis, acutis; sulco dorsali profundo, angusto, ad extremitates continuo; costellis numerosissimis, tenuibus, ad sulcum abruptè terminantibus.

168. BREVISSIMA, *Sowb.* (f. 523, 524).—C. testâ *C. globosæ* affini, sed sulco dorsali nullo aut inconspicuo.

Note.—I observed several specimens of this in the collections of Miss Saul and Mr. Hugh Owen after the completion of the Plates. In every respect it appears like *globulus,* excepting in the having scarcely any dorsal mark, in some specimens none.

Nivea, oryza, scabriuscula, insecta, grando, vitræa, globosa, brevissima. Although Mr. Gaskoin's observations threw some doubt over the identity of Gray's species *nivea,* it will be better to retain the name, as applied in the 'Conchological Illustrations' and in the 'Conchologia Iconica,' to the rough-ribbed species figured. We believe f. 474, 475, 476 to represent the true Lamarckian *oryza.* Specimens of the same are in the Cumingian cabinet, as *C. Sandwichensis. C. scabriuscula* of Gray may quite possibly be a variety of the same species, but is characterized by coarser sculpture, a higher, rounded back, produced, rostrated extremities, and very short dorsal sulcus. *Insecta,* on the other hand, is of a uniformly small size, narrow elongated form and depressed back, and, like *oryza,* lengthened sulcus. All three have smooth ribs and granulated interstices; and it is quite an open question whether they should be regarded as one species (*oryza*) or as three. *Globosa* is extremely short and round, with extremities scarcely produced, a very narrow aperture, and a sharply-cut dorsal sulcus reaching to the extremities. The ribs are abruptly interrupted at the sulcus. *Grando* is more like *oryza* in general form, although

much more globose; it is extremely finely ribbed, and has an almost spirally sinuous, very narrow aperture, with very small and sharp varices on the columellar lip. *Vitræa* is still more globose, with a pellucid texture and coarser ribs, angulated and depressed at the dorsal sulcus, which some of them cross in continuation, while others end alternately with each other. For *brevissima*, see sp. 168.

169. SUBROSTRATA, *Gray*, (f. 480, 481, 482, et 489).—C. testâ globosâ, solidâ, fusco-purpurascenti; margine dextro obtusè marginato; extremitatibus subrostratis, obtusis; sulco dorsali brevi, conspicuo; costellis numerosissimis, per sulcum plurimis continuis, plurimis alternatim interruptis; basi rotundâ; columellâ brevi, utrinque obtusè varicosâ; sulco subæqualiter angustato; aperturâ angustâ, arcuatâ.

170. PULLA, *Gask.*, (f. 490, 491).—C. testâ *C. subrostratæ* affini, magis elongatâ; costellis tenuioribus, per lineam dorsalem plerumque continuis, lineâ dorsali subdepressâ inconspicuâ; sulco nullo.

Note.—*Subrostrata* and *pulla*. The dorsal groove in *subrostrata* is well-marked and conspicuous; some of the ribs cross it, others are interrupted and their ends intercalate. *Pulla* has no distinct sulcus, has finer ribs, and is less globose.

171. SANGUINEA, *Gray*, (f. 483–486).—C. testâ ovatâ, fusco-purpurascenti vel rosescenti, frequenter latera versus basimque nigricanti; lateribus dilatatis, leviter depresso-marginatis; extremitatibus obtusis; lineâ dorsali brevi, vix depressâ, medio maculâ sanguineâ magnâ pictâ, utrinque albidâ; costellis albidis, crassis, validè divaricatis et radiantibus, plerumque per sulcum continuis; basi convexâ, labiis dilatatis; columellâ vix varicosâ; aperturâ arcuatâ, ad terminos leviter arcuatâ, costellis dentalibus et interstitialibus crassis, albidis.

172. FUSCA, *Gray*, (f. 487, 488).—C. testâ *C. sanguineæ* affini, parvâ, angustâ, omnino fumeo-fuscâ; costellis tenuioribus; dorso magis rotundo-elevato, lineâ centrali albidâ; latere dextro conspicuè marginato; extremitatibus productis, acutis; columellâ utrinque varicosâ, labio angustato.

173. RUBINICOLOR, *Gask.*, (f. 500, 501).—"C. testâ ovato-subglobosâ, utrinque subrostratâ, rubellâ; extremitatibus pulchrè roseo-rubris; labro incrassato, convexo; costis acutis, continuis, indivisis; lineâ dorsali nullâ."

174. CALIFORNICA, *Gray*, (f. 425, 426).—C. testâ *C. sanguineæ* affini; costellis crassis, perpaucis, ad sulcum subtuberculatis, nonnullis interruptis.

175. PRODUCTA, *Gask.*, (f. 495, 496).—C. testâ albidâ, ovato-subglobosâ, lineâ medianâ subdepressâ; dorso elevato; lateribus subdilatatis; extremitatibus crenulatis, productis; basi planulatâ; aperturâ angustatâ, utrinque acutidentatâ; costellis dorsalibus acutis, elevatis, conspicuè versus medium convergentibus, plerumque per lineam dorsalem continuis; interstitiis crenulatis.

175*. PAUCILIRATA, *Sowb.*, (f. 502, 526). See page 53.

Note.—Sanguinea, fusca, rubinicolor, Californica, producta, paucilirata. Fig. 486 is a shell from California, only differing slightly in colour from the type of *sanguinea*. It is difficult to state characters distinguishing *fusca* from *sanguinea* that are positive, although compared with the normal form of the latter, the former appears very different. It is smaller, narrower, more produced, more finely ribbed, more distinctly bordered, and emarginated at the ends, and the ribs are of the same colour as the rest of the shell. Notwithstanding some puzzling apparent intermediate varieties of the larger shell, I think on the whole that *fusca* may be regarded as distinct. *Rubinicolor* has the teeth more numerous and even; very few of the dorsal ribs terminate either at the sides or at the dorsal line. The shell is also smaller and shorter, with the upper border more dilated. *Californica* is more nearly allied to *sanguinea*, having the same converging character of ribs; but the ribs are much fewer and thicker; some of them swelled or tuberculated at the dorsal line, which is slightly depressed. *Producta*, although a white shell, has much more affinity with *sanguinea* than with *scabriuscula*, by reason of the convergiug character of the dorsal ribs and the slightness of the dorsal depression. *Paucilirata* is small, with fewer ribs and more distinct sulcus than *producta*.

176. TREMEZA, *Ducl.*, (f. 510, 511).—C. testâ ovato-rostratâ; pallidè roseâ, vividè utrinque rubro maculatâ; dorso rotundo, brevi; lineâ medianâ leviter impressâ; costellis dorsalibus, valdè convergentibus, plerumque per lineam dorsalem continuis; paucis intermediis; basi convexâ; extremitatibus exiguis; aperturâ angustissimâ.

Note.—Tremeza of Duclos is *exigua* of Gray. It is a most

remarkable little shell, which has very radiating dorsal ribs and bright pink patches of colour. Specimens vary in the character of the dorsal line; in some it is crossed by nearly all the ribs, in others it is the point at which they cease.

177. ACUTIDENTATA, *Gask.*—C. "testâ candidâ, ovato-globulosâ, utrinque subproductâ; labro incrassato; costis acutis prominentibus; dorsum versus partim interruptis, opacis, interstitiis inæqualibus, nitidulis; columellâ convexiusculâ, absque plicâ."

The original type was broken by Mr. Gaskoin after description, and the fragments preserved in Miss Saul's collection are quite incomplete.

178. EUROPÆA, *Mont.*, (f. 503, 504; young, 527, 528).—C. testâ ovatâ, subventricosâ, carneo-grisescente, lineâ centrali, basique albis, maculis dorsalibus nigrescentibus quatuor, terminalibus saturatioribus; latere dextro marginato; extremitatibus obtusis; costellis lævibus, numerosis, rotundis, per lineam dorsalem continuis; basi rotundâ; columellâ utrinque breviter varicosâ, sulco columellari profundo, lato; aperturâ latiusculâ; extremitatibus subæqualibus.

178*. MULTILIRATA, *Sowb.*, (f. 427, 428, 521, 522).—C. testâ roseâ, immaculatâ, quam *C. Europæa* magis globosâ; costellis numerosis, acutis, haud tantum radiantibus; columellæ varice postico parvo, acuto, conspicuo.—Hab. Adriatic.

179. NAPOLINI, *Ducl.*, (f. 505).—C. testâ *C. Europææ* affini, angustiore; extremitatibus magis productis; labii columellam superanti; aperturâ angustiore, sulco columellari contracto; costellis acutiusculis, dorso magis convergentibus; colore griseo, nonnunquam nebulato; maculis subterminalibus duabus tantum parvis.

180. CANDIDULA, *Gask.*, (f. 508, 509).—C. testâ *C. Europææ* affini, albâ, breviore, margine dextro posticè magis expanso; costellis paucis, dorso vix divaricatis; basi subcomplanatâ, labio lato; columellæ varicibus incrassatis.

181. RUBESCENS, *Gray*, (f. 506, 507, 520).—C. testâ *C. Europææ* affini, roseâ, immaculatâ, breviore; costellis acutis, paucis; columellæ varicibus acutiusculis.

182. PELLUCIDULA, *Gask.*, (f. 497, 498, 499).—C. testâ ovatâ, nitidâ, albicante, subhyalinâ; costellis continuis, ad

utrumque latus aperturæ terminatis; dentibus æqualibus, minimis numerosisque; sulco columellari profundo, lato; lineâ dorsali nullâ; extremitatibus valde productis et obtusis; aperturâ rectâ, posticè subsinuatâ.

183. FORMOSA, *Gask.*, (f. 518*, 519.)—C. testâ "ovato-globosâ, tenui, ceriseo-subnitente, pallidè roseâ, subnebulosâ; anticè saturatiore; basi albidâ, costis numerosis, confertis, continuis, ad basin non interruptis; margine subincrassato; aperturâ latiusculâ; lineâ dorsali nullâ."

Note.—Europæa, Napolini, candidula, rubescens, pellucidula, formosa. In all the above species the ribs are not interrupted by any dorsal line. *Coccinella* and *arctica* are varieties of *Europæa*, and *bullata* is only the young pellucid state of the same. It was not till after examining a number of specimens that the separability of *Napolini* was decided, but the differences appear pretty uniform. It is much narrower and more produced at the extremities, its dorsal ribs are more convergent towards the middle of the shell, and they are fewer and sharper than in *Europæa*. It has only two small spots, one at each end of the dorsal line. *Pellucidula* has much the same form, but is white, and still more beaked; its ribs are very fine indeed, and the aperture very narrow and subspirally sinuated. *Candidula* is a white shell, much shorter, thicker, and more coarsely-ribbed than *Europæa*. The margin is dilated, particularly at the posterior end, and the outer lip is broad and thick. *Rubescens* resembles *candidula* in form, but is of a rose-pink colour, and is not so dilated at the upper margin. Its ribs are coarser and sharper than in *Europæa*. *Crebricostata*, first figured for *formosa*, has the ribs much more numerous than in *Europæa*. It is also more globose, with the posterior varix of the columella peculiarly sharp, small, and recurved. The true *formosa* (from type) is a whitish shell, very delicately suffused with a rose blush; it is slightly pyriform, with very numerous, fine ribs.

B**. *Broad and inflated, with wide apertures, and narrow outer lips.*

184. ONISCUS, *Lamk.*, (f. 416, 417).—C. testâ latâ, subquadratâ, ventricosâ, fulvâ grisescenti, conditione viventi irides-

centi; termiuis latis obtusissimis; margine labii extus incrassato; costellis tenuibus, penitus ad lineam dorsalem extensis, subdistantibus; interstitiis planatis; aperturâ latâ; columellâ superne inflatâ, medio contractâ, anticè inflatâ, concavâ, dentatâ; lineâ dorsali latâ, planatâ.

185. OVULA, *Lamk.*, (f. 409, 410, 411).—C. testâ formâ *C. onisci* simili, sed costellis obsoletis; margine columellæ et labio solum dentatis; cicatrice dorsali nullâ.

186. VESICULARIS, *Gask.*, (f. 412, 413).—C. testâ *C. onisci* simili, sed tenuiore; costellis magis numerosis, approximatis, ad dorsum vix interruptis; columellæ extremitatibus acutis, distinctis.

187. CARNEA, *Gray*, (f. 414, 415).—C. testâ *C. onisci* simili, sed multo angustiore; aperturâ haud tantum apertâ; costellis super dorsum continuis; cicatrice dorsali nullâ.

Note.—Oniscus, ovulata, vesicularis, rosea. In *oniscus* the ribs do not meet at the back, but have a smooth dorsal line between their ends. In *vesicularis* they are much finer, and are scarcely interrupted at the dorsal line. *Ovulata* is nearly smooth at the back. *Rosea*, which is more ovate than the preceding, is of a very delicate rose tint, and the ribs are not interrupted at the back by dorsal line or groove.

129*. MACANDREI, *Sowb.*, (f. 537, 538).—C. testâ elongato-ovatâ, lævi; extremitatibus productis, contractis, lateraliter liratim foveolatis, depressis, medio callosis, margine sinistro castaneo punctato liratim foveolato; dorso subdepresso, punctis albis minutis et ocellis fuscis castaneis majoribus albo-punctatis rarioribus sparso; lateribus basique fulvis; basi subcomplanatâ, ad latera maculis rotundis numerosis conspicuis ornatâ; aperturâ angustâ; dentibus 23 et 18, columellæ medianis minutissimis, anticis acutis validis, prominentibus incrassatis, labii acutis brevibus prope marginem concinnè castaneo lineatis.

Note.—The characters of the aperture distinguish this neat little shell from a variety of *C. spurca*, which it somewhat resembles. The mouth is narrow, the teeth are very fine and sharp. In the middle of the columella they are extremely minute, but a few anterior ones are prominent and conspicuous. Those of the outer lip have neat lines of

colour behind them. The shape of the shell is more elegant, and the ends produced, sharp and contracted.

175*. PAUCILIRATA, *Sowb.*, (f. 502, 526).—C. testâ *C. productæ* affini, sed parvâ; costellis paucis; sulco dorsali conspicuo.—Hab. —— ?

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formosa, 183, *Gask.*, f. 518*, 519.
fragilis, Linn., Arabica.
fragilis, Gmel., Mauritiana.
Friendii, Gray, Scottii.
fusca, 172, *Gray*, f. 487, 488.
fusco-dentata, 110, *Gray*, f. 298, 299.
fusco-maculata, 90, *Gray*, f. 372, 373.
gangrænosa, 130, *Sol.*, f. 230–235, 531.
Gaskoinii, 116, *Reeve*, f. 352, 353.
gemmula, Gould., tremeza.
gibba, Gmel., stercoraria.
globosa, 167, *Gray*, f. 466, 467, 524*.
globulus, 143, *Linn.*, f. 347, 348.
Goodallii, 89, *Gray*, f. 309, 310.
gracilis, 84, *Gask.*, f. 315–317.
grandis, 165, *Gask.*, f. 470, 471.
Grayi, Kien., physis.
guttata, 120, *Gray*, f. 104, 105.
guttata, Lamk., pantherina.
helvola, 134, *Linn.*, f. 214–217.
hirundo, 23, *Linn.*, f. 382–384.
histrio, Gmel., reticulata.
hordacea, Kien., insecta.
Humphreysii, Gray, lutea.
icterina, Lamk., moneta.
Indica, Gmel., scurra.
insecta, 164, *Mighaels*, f. 477, 478, 479.
intermedia, Kien., oryza.
interrupta, 14, *Gray*, f. 271–274, 535.
interstincta, Wood, staphylæa.
irrescens, ——*?*, macula.

irina, Kien., nigropunctata.
isabella, 9, *Linn.*, f. 16, 17, 18, 258.
irrorata, 13, *Sol.*, f. 304, 305.
labio-lineata, Gask., gangrænosa.
labiosa, Gask., pediculus.
lactea, Wood, eburnea.
Lamarckii, 121, *Gray*, f. 106, 107.
latyrus, Kien., sanginea.
leucodon, 35, *Brodp.*, f. 19, 20.
leucostoma, 49, *Gask.*, f. 36, 37.
lentiginosa, 73, *Gray*, f. 151, 152, 153.
limacina, Lamk., staphylæa.
Listeri, 127, *Gray*, f. 116, 117, and 241, 242.
lota, Lamk., spurca?
lota, Wood, ovulata.
lurida, 7, *Linn.*, f. 64, 65.
lutea, 87, *Gron.*, f. 142–144.
lynx, 63, *Linn.*, f. 85*, 86*, 87*, 88*.
Macandræi, 129*, *Sowb.*, f. 537, 538.
macula, 98, *Adams.*, f. 379–381.
maculata, Gray, Sowerbyi.
Madagascariensis, 140, *Gmel.*, f. 406–408.
mappa, 41, *Linn.*, f. 24–28.
marginata, 56, *Gask.*, f. 45, 46.
margarita, 119, *Sol.*, f. 337, 338.
Maugeriæ, 151, *Gray*, f. 450, 451.
Mauritiana, 45, *Linn.*, f. 51, 52.
melanostoma, 62, *Leathes*, f. 34, 35.
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microdon, 100, *Gray*, f. 385, 6.
miliaris, 122, *Gmel.*, f. 109.
modesta, H. Owen, Menkeana.
moneta, 50, *Linn.*, f. 244–251.
moniliaris, Lamk., clandestina.
multilirata, 178*, *Sowb.*, f. 427, 428, 521, 522.
mus, 48, *Linn.*, f. 29, 30, and 321.
Napolini, 179, *Duclos*, f. 505.
nebulosa, 72, *Kiener*, f. 198, 199, 354–356, 514, 515.
neglecta, 24, *Sowb.*, f. 374–378.
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nivea, 161, *Gray*, f. 468, 469.
nivosa, 38, *Brod.*, f. 89, 90.
nucleus, 139, *Linn.*, f. 399, 400.
Nuomeensis, Marie, annulus.
nymphæ, Duclos, onyx, 75,
obvallata, 52, *Lamk.*, f. 254, 255.
ocellata, 124, *Linn.*, f. 102, 103, 243.
oculata, Gmel., cervus.
olivacea, Lamk., errones, 64.
olivacea, Gmel., stercoraria.
oniscus, 184, *Lamk.*, f. 416, 417.
onyx, 75, *Linn.*, f. 208–212.
oryza, 162, *Lamk.*, f. 474–476.
ovula, 185, *Lamk.*, f. 409–411.
ovum, Gmel., errones.
Owenii, 25, *Gray*, f. 366–371.
pallida, 97, *Gray*, f. 159, 160, 357.
Pacifica, 156, *Gray*, f. 441–443.
pallidula? quadrimaculata.
pantherina, 60, *Sol.*, f. 69, 70, 71.
parvula, Phil., Europæa?
paucilirata, 175*, *Sowb.*, 502, 526.
Peasei, 113, *ms.*, f. 167, 168.
pediculus, 150, *Linn.*, f. 429–438.
pellucidula, 182, *Gask.*, f. 497–499.
physis, 77, *Brocchi*, f. 200, 201.
picta, 67, *Gray*, f. 179, 180, 320.
pilula, Kien., globosa.
piperita, 104, *Sol.*, f. 285, 286, 288, 289, 533.
pisum, 152, *Gask.*, f. 448, 449.
plumbea, Gmel., cervus.
poraria, 128, *Linn.*, f. 236, 237.
princeps, 40, *Gray*, f. 1, 2.
producta, 175, *Gask.*, f. 495, 496.
pulchella, 79, *Swains.*, f. 148–150.
pulchra, 8, *Gray*, f. 62, 63.

pulex, 154, *Sol.*, f. 492–494.
pulicaria, 105, *Reeve*, f. 290, 291.
pulla, 170, *Gask.*, f. 490, 491.
pullata, H. Owen, suffusa.
punctata, 93, *Linn.*, f. 278–281.
punctulata, 96, *Gray*, f. 154, 155.
purpurata, Sol., sanguinolenta.
pustulata, 137, *Lamk.*, f. 396–398.
pyriformis, 80, *Gray*, f. 145–147.
pyrum, 76, *Gmel.*, f. 202–205.
quadrimaculata, 15, *Gray*, f. 275–277.
quadripunctata, 157, *Gray*, f. 460–463.
radians, 146, *Lamk.*, f. 420–422.
rattus, Lamk., stercoraria.
Reevii, 12, *Gray*, f. 40, 41.
regina, Chemn., Mauritiana.
reticulata, 43, *Marlyn*, f. 57, 58, 66, 67, 68.
rhinoceros, Desh., interrupta.
Rientzii ? gangræuosa, 139.
rosea, Kien., carnea.
rotunda, Kien., quadripunctata.
rubescens, 181, *Gray*, f. 506, 507, 520.
rubiginosa, Gmel., stolida.
rubinicolor, 173, *Gask.*, f. 500, 501.
rufa, Lamk., pyrum.
Sandvichensis, B. M., oryza.
sanguinea, 171, *Gray*, f. 483–486.
sanguinolenta, 69, *Gmel.*, f. 194, 195.
Saulæ, 83, *Gask.*, f. 85, 86.
scabriuscula, 163, *Gray*, f. 472, 473.
Scottii, 54, *Brod.*, f. 47, 48.
scurra, 44, *Chemn.*, f. 53–56.
similis, 108, *Gray*, f. 300, 301.
Solandri, 147, *Gray*, f. 418, 419.
sordida, Lamk., cinerea.
Sowerbyi, 70, *Kiener*, f. 79, 80.
spadicea, 74, *Swains.*, f. 81, 82.
sphæruta, —— *?* globosa, 167.
spurca, 131, *Linn.*, f. 118–122, 516.
squalina, Gmel., lynx.
staphylæa, 138, *Linn.*, f. 223–229, 518.
stercoraria, 53, *Linn.*, f. 96, 97, 98.
stercus-muscarum, 94, *Lamk.*, f. 363, 364, 365.
stolida, 28, *Linn.*, f. 327, 328, 329.
subcylindrica, 21, *Sowb.*, f. 269, 270.
subrostrata, 169, *Gray*, f. 480–482, 489.
subviridis, 65, *Reeve*, f. 176, 177, 178, 358.
suffusa, 155, *Gray*, f. 444–447.
sulcata, 153, *Gask.*, f. 454, 455.
sulcidentata, 36, *Gray*, f. 21, 22, 23.
subflava, Gmel., errones.
Surinamensis, B. M., nebulosa.
tabescens, 18, *Sol.*, f. 261–265.
talpa, 5, *Linn.*, f. 74, 75, 76.
teres, 19, *Gmel.*, f. 259, 260.
tessellata, 31, *Swains.*, f. 99, 100, 101.
testudinaria, 1, *Linn.*, f. 83, 84.
Thatcheri, 57, *Cox*, f. 5, 6.
Thersites, 55, *Gask.*, f. 49, 50.
tigrina, Lamk., pantherina.
tigris, 59, *Linn.*, f. 172–175.
tremeza, 176, *Duelos*, f. 510, 511.
trifasciata, Gmel., Mauritiana.
tritícea, Blainv., Pulex.
trizonata, 95, *Sowb.*, f. 361, 362.
turbinata, Gmel., Mauritiana.
turdus, 125, *Lamk.*, f. 128–130, 284.
umbilicata, 61, *Sowb.*, f. 42–44.
undata, 85, *Lamk.*, f. 131–134.
undulata, Gmel., Mauritiana.
ursellus, Gmel., felina.
Valentia, Perry, princeps.
Vanelli, Linn., lynx.

variolaria, Lamk., cruenta.
ventriculus, 32, *Lamk.*, f. 3, 4.
venusta, Gask., ms., Thatcheri.
vesicularis, 187, *Gask.*, f. 412, 413.
vitellus, 37, *Linn.*, f. 31, 32, 33.
vitrea, 166, *Gask.*, f. 456, 457.
Walkeri, 78, *Gray*, f. 123–125, 536.
xanthodon, 66, *Gray*, f. 196, 197, 513.
zebra, Linn., exanthema.
ziczac, 86, *Linn.*, f. 135–138.
ziczac, part, undata.
zonaria, Gmel., zonata.
zonata, 71, *Chem.*, f. 126, 127.

ERRATA.

Page 7, CINEREA, not *Gask.*, but *Gmel.*
„ 10, MENKEANA, not *Owen*, but *Deshayes.*
„ 10, OWENII, not *Sowb.*, but *Gray.*
„ 14, PRINCEPS, not *Brod.*, but *Gray.*

OLIVA, *Bruguière.*

PREFACE.

My object in writing the present Monograph on the genus *Oliva* has been to produce as much evidence as could be procured by the study of one of the largest series of varieties collected together in any genus of marine Mollusca. If, by a close comparison and a study of the affinity existing between the various species, I have collected a series of facts that will prove useful to my fellow-students in the arrangement of their cabinets, or will furnish materials by which general deductions may be drawn, my wishes will have been accomplished. In describing as new many forms not hitherto noticed, and in retaining several of the shells which had been rejected as varieties by my predecessors, I have been influenced by special motives. Wherever shells have served to illustrate a line of affinity existing either between species, or more especially where, by introducing certain forms, an unbroken line of affinity could be established, I have not hesitated to avail myself of all the materials at my command required for that purpose. If a different mode of proceeding had been adopted, and if large numbers of moderately distinct forms had been grouped together under generic or subgeneric heads, the result of many careful observations must have been omitted. On the other hand, to have brought forward a considerable number of named subspecies or varieties would have indicated a desire on my part to decide the exact value of specific as compared with subspecific distinctions,—a decision which I feel myself by no means qualified to attempt.—F. P. Marrat, 100, *Edge Lane, Liverpool.*

It has fallen to the Editor's lot to translate and put into form corresponding to the general plan of the work, the valuable results of Mr. Marrat's labours. He has not in any case interfered with the insertion and arrangement of species adopted by the author. In some few cases, however, he has ventured to express an opinion; and wherever the opinion so expressed has not coincided with the author's views, he has distinguished his own remarks by the letters "Ed."

Genus OLIVA.

Molluscum trachelipodum. Testa porcellana, oblonga; anfractu ultimo magno, anticè rimâ elevatâ balteato; aperturâ angustâ; columellâ medio et posticè plus minusve callosâ, plicatâ, anticè callo spirali plicato terminanti; spirâ plerumque brevi; suturâ canaliculatâ.

Operculum in speciebus majoribus cylindraceis nullum; in minoribus ancillariformibus plurimis elongatum, corneum, nonspirale, nucleo subterminali laterali.—Ed.

Shells varying from oblong-cylindrical to broadly-fusiform; spire from flat or depressed to very elongately conical; sutural canal either wholly or partially open; columella either plaited or having oblique folds at the base; shells smooth, generally highly polished. Species resembling the following genera are found among the Olives, viz. Ancillaria, Conus, Mitra, Marginella, etc., from all of which they may be distinguished by the open sutural groove.—F. P. Marrat.

If it could be ascertained, with anything approaching precision, that the shells of any large group, agreeing with each other in form, possessed an operculum, while another section, agreeing in other general characters, did not, we should then have good grounds for generic or subgeneric division. But this is not the case. The gradations in respect to form, proportions, spiral and anterior callosities, etc., are so minute and variable, and depend so much upon age and condition of specimens, that the subgeneric divisions proposed by authors cannot be defined.

The larger, more cylindrical, solid shells have been divided, without any appreciable line of demarcation, into the groups or subgenera Porphyria, *Bolt.*, Cylindrus, *Meuschen*, Ispidula, *Gray*. None of these are operculated.

The small, ancillaria-like species, many of which have opercula, constitute the genus OLIVELLA of *Swainson*.

Between the above are various groups, mostly consisting of a small number of species each, such as OLIVANCILLARIA, *D'Orb., O. Braziliensis*, etc.; LENTRICULA, *Ad., O. auricularia*, etc.; CALLIANAX, *Ad., O. biplicata;* DACTYLIDEA and MICANA, *Gray, O. zenospira*, etc., UTRICULINA and ANAZOLA, *Gray*. Some of these have opercula.

AGARONIA, *Gray*, includes the larger ancillaria-shaped forms, with wide apertures and acuminate spires, such as *O. hiatula, O. pallida*, etc. They have an operculum which is rarely preserved.

SPECIES.

1. PORPHYRIA (f. 1, 2), *Linnæus*, Syst. Nat.—Ventricoso-cylindracea, terminis rotundis, salmonea, lineis fuscis angulatis plus minusve approximatis notata; spirâ brevinsculâ, apice mucronato; anfractibus concavo-depressis violaceis ad suturam fasciculatis, balteo posticè violaceo, anticè fusco litterato; columellâ densè plicatâ, tumidâ, callo antico quadriplicato, posticè violaceo; aperturâ fulvâ; labio acuto.—No other species approaches this in form or marking.

2. INCRASSATA (f. 7, 8, and 473), *Solander;* Duclos, Oliva, t. 17, f. 9, 10.—Crassa, latè turbinata, posticè obtusè angulata, pallidè lutea, maculis fuscis irregularibus numerosis frequenter majoribus angulatis picta; spirâ conicâ, balteo piperito; aperturâ salmoneâ; columellâ crassâ, obscurè plicatâ, callo antico lato; labio crassissimo, posticè angulato, extus planulato.—Distinguished by the flattened outer lip, pouderous growth, and angular form. The narrow variety, f. 8, is scarcely recognizable as belonging to this species, having scarcely any angle.

3. TIMOREA (f. 4), *Duclos*, Ol. t. 17, f. 11–13.—*O. incrassatæ* similis, sed vix turbinata, haud tantum angulata, lineis acutè angulatis creberrimis picta; columellâ subacutè plicatâ.—Why Mr. Reeve concluded this to be a variety of *O. reticularis*, Lam., it is impossible to say, as he had only seen Miss Steer's specimens and Duclos' figures, all broadly typical. The statement that the shell is not from Timor is made without stated authority.

4. SUBANGULATA (f. 3), *Philippi.*— *O. incrassatæ* similis, posticè validè angulata, ante angulum elongata et coarctata;

aperturâ et columellâ violaceis, plicis calli antici quatuor quarum posticâ distanti.—The violet mouth and columella, the enamelled surface, and the contraction and elongation below the angle, are all peculiar.

5. JULIETTA (f. 5, 6), *Duclos*, Oliva, pl. 16, f. 3, 4.—Ovato-subfusiformis, crassa, lutescens, lineis angulatis subcæruleis inter maculas subrotundas ustulatas angulatim dispositis ornata; spirâ conicâ, balteo maculis ustulatis sparso; columellâ ferè ad angulum posticum aperturæ validè plicatâ, plicâ calli posticâ pictâ; labio extus intusque abraso.—Markings peculiar, and colour not salmon but yellowish.

6. PUNCTATA (f. 12, 13), *Marrat*.—Oblonga, vix turbinata, lineis punctatis angulatis ad marginem fasciculatis notata, balteo punctato; columellâ posticè vix plicatâ, plicis calli anticè 3 ad 4 pictis.—The form and spotted markings distinguish this from *O. venulata*, which Mr. Reeve supposes it to represent.

7. MELCHERSI (f. 9–11, et 32), *Menke*.—Subfusiformis, pallidè fulva vel ustulata, obscurè bifasciata, lineis fuscis punctatis acutangulatis ad suturam fasciculatis litterata; spirâ acuminatâ; anfractibus planulatis, balteo flammulato; columellâ posticè aut validè plicatâ, aut lævigatâ, plicis calli antici, 4 aut 5, ad terminum pictis; labio intus abraso.—The West Indian variety differs from the South American in being shorter and broader, with the columella plaits more developed.

8. FUSCATA (f. 20, 21, 22), *Marrat*.—*O. Melchersi* similis, minor, subturbinata, labio posticè subangulato; columellâ posticè violaceâ, lævigatâ, callo antico angusto plicis perobliquis.—Smaller and slightly more angular than *O. Melchersi*, with the same markings and colour in the different varieties. Neutral part of the columella smooth and violet; anterior callus narrow, with very oblique folds.

9. HARPULARIA (f. 38), *Lam.* Anim. s. Vert.—Turbinata, pallida, flammulis strigata, balteo angulatim flammulato; columellâ lævigatâ, callo antico parvo, plicis paucis ferè obsoletis.—The flamed markings distinguish this shell, which is only known in a decorticated condition.

10. ISPIDA (f. 15, 16, 17), *Link*.—Crassa, ventricoso-subfusiformis, pallidissimè carnea fusco undulatim flammulata, ad suturam fasciculata, medio interruptim et obscurè bifas-

ciata; spirâ concavo-acuminatâ; columellâ obscurè plicatâ; callo antico parvo, plicis paucis; labio crasso, extus abraso. —The enamel of the spire is remarkably rich and pellucid in this species. *O. obesina*, Duclos, not Reeve, is the shorter and more rounded var. of this, f. 17.

11. OBLONGA (f. 14), *Marrat.*—Oblongo-subfusiformis, crassa, lactea lutescens, cinereo nebulata, fusco angulatim notata, ad suturam fasciculata; spirâ conicâ, balteo lineato et punctato; columellâ lævigatâ, callo anticè angusto, plicis 5 ad 6 carneis, haud prominentibus; labio crasso, extus abraso.

12. SPLENDIDULA (f. 18, 19), *Sowb.*—Solida, subcylindracea, lactea, maculis angulatis cæruleo vel albo margiuatis, in fasciis latis duabus majoribus notata; balteo flammulato et punctato; columellâ posticè plicatâ, plicis cirrhiformibus, calli antici plicis 4 purpureis, posticâ distanti; labio crasso abraso, extus punctato.—The plaits on the ventral part of the columella are peculiarly thread-like, and the form and triangular spots are constant.

13. USTULATA (f. 23–25), *Lamk.*—Subcylindracea, utrinque obtusa, fusca, angulariter notata, fasciis pallidis distantibus latis cincta; spirâ brevi mucronatâ, suturâ punctatâ; columellâ medio posticèque validè plicatâ, plicis calli antici 5, anticis pictis; aperturâ angustâ, tumidâ; labio intus abraso. —An obtuse, thick-set shell, banded with cream or brownish-white on a dark-brown ground.

14. HEPATICA (f. 27, 28), *Lamk.*—Quam *O. ustulata* magis elongata, anticè magis arcuata, posticè magis acuminata, lactea, fasciis et lineis fuscis eleganter cincta.—A more gracefully-formed and delicately-coloured shell than *O. ustulata*.

15. CUMINGII (f. 39, 40), *Reeve.*—Subturbinata, brevis, posticè subtruncata, griseo-subaurantia, lineis interruptis obscuris cincta; columellâ posticè lævigatâ, plicis calli antici 4 latis validis purpureis; aperturâ intus subcæruleâ.— An easily recognized shell, without the angular markings which characterize the great majority of Olives.

16. FORMOSA (f. 29, 30), *Marrat.*—Fusco-cinerea, fasciis pallidis cincta, quam *O. hepatica* magis fusiformis, anticè subexpansa, posticè subattenuata.—Not so straightly cylindrical as *O. hepatica* or *O. ustulata*. Of an ashy complexion, with the dark brown covering the greater surface.

17. JAMAICENSIS (f. 26), *Marrat.*—Subcylindracea, utrinque subrotunda, obtusa, fulvo-rubescens, obscurè bifasciata, lineis crebris longitudinaliter fluctuatis et super fascias maculis nigrescentibus trigonis notata; balteo fusco lineato; columellâ plicatâ, callo antico angusto, plicis 5 aut 6 validis tinctis; aperturâ violaceâ; labio crasso punctato, intus abraso.—Different in form, colour and markings from the rest of the group.

18. GRAPHICA (f. 36), *Marrat.*—*O. venulatæ* (sp. 21) similis, magis ventricosa, crassior, lineis punctatis acutè angulatis ad suturam fasciculatis notata.—The figure will show the peculiarly dotted angular markings, upon which, with the more obese form, Mr. Marrat appears to found the species, as distinct from *O. venulata.*

19. PORCEA (f. 35), *Marrat* (*obesina*, Reeve).—Quam *O. venulata* (sp. 21) crassior, brevior, lineis punctatis interruptis.—Allied to the *O. venulata* as figured by Duclos. *Mar.* Does it differ from *O. graphica?*—ED.

20. PINDARINA (f. 33, 34), *Duclos*, Ol. t. 16, f. 7, 8.—Quam *O. venulata* (21) magis turbinata, etiam subangulata, intus purpurascens; labio intus extusque abraso.—More angular than *O. venulata*, with thickened outer lip.

21. VENULATA (f. 31, 37), *Lamk.*—Subcylindrica, ante suturam subrotunda, pallidè violacco nebulata et inter maculas albas trigonas punctata, fasciis duabus macularum semilunarum cincta, ad suturam lineis fuscis fasciculata; columellâ ad terminum leviter tinctâ, ferè omnino plicatâ, plicis calli antici 4 latis profundè incisis; labio externo vix incrassato, extus punctato.—*O. Pindarina* differs from this in the character of the markings, not having the bands of semilunar spots; in the shape, being more angular at the shoulder, and in the greater thickness of the outer lip.

22. POLPASTA (f. 42, 43), *Duclos*, Ol. pl. xvi. f. 1, 2.—Lata, turbinata, anticè truncata, solida, lacteo-lntescens, obscurè cæruleo bifasciata, angulatim lineata et punctata, ad suturam fasciculata; spirâ conicâ, brevi; columellâ ferè omnino plicatâ, callo antico 4–5-plicato, ad terminum maculâ fuscâ plerumque rotatâ.—The broad, turbinated form of this fasciculated group.—ED.

23. TRUNCATA (f. 41), *Marrat.*—Oblongo-ovata, albido-rubescens, lineis longitudinalibus rufo-fuscis undulatis picta et ad suturam fasciculata; spirâ mucronatâ, balteo angusto subcarinato, fusco flammulato; columellâ omnino plicatâ, plicis numerosis acutis, callo antico latè quadriplicato, plicis acutis tinctis; labio crasso, intus abraso.—The rounded form, numerous plaits, short spire, and different markings, all serve to distinguish this from *O. polpasta*.

24. BRUNNEA (f. 54, 55), *Marrat*; O. oriola, *Duclos*, non *Lamk.*—Ovato-subfusiformis, subinflata, fusco-ustulata, obscurè reticulata et fasciculata; aperturâ albâ; columellâ obscurè plicatâ, callo antico plicis 4–5 quarum tribus purpureis.

25. BEWLEI (f. 44), *Marrat.*—Cylindrica, subelongata, purpureo-cinerea, lineis angulatim undulatis arcas parvas trigonas circumscribentibus notata, obscurè bifasciata, balteo subcarinato; spirâ mucronatâ, apice subpurpureo, suturâ fasciculatâ; columellâ medio et post medium plicatâ, purpureâ, plicis anticis duplicatim divergentibus; callo antico, ad terminum plicâ ad balteum contingenti, marginibusque plicarum alterarum purpureis; aperturâ intus albâ; labio intus abraso et punctato.—Belonging to the *reticularis* group, but of a more oblong form, and approaching *O. scripta* et *litterata*. The amethystine colouring of the anterior callus and its folds is peculiar.

26. FIGURA (f. 45), *Marrat.*—Cylindracea, utrinque obtusa, fulva, lineis angulatis in fasciis duabus litteratis, ad suturam elongato-fasciculatis notata; spirâ brevi, conicâ, callo fusco marginatâ; columellâ violaceâ, anticè et post medium plicatâ, plicis crebris paulo elevatis, callo antico 4- seu 5-plicato, fulvo leviter tincto; aperturâ violaceâ, labio albo intus punctato et abraso.—Closely allied to, but differing from *O. violacea*, *O. scripta*, *O. Jamaicensis*, and other species.

27. RECLUSA (f. 264), *Marrat.*—*O. ispidæ* vel *O. olivaceæ* similis.—Mr. Marrat considers this shell to be allied, not, as the Editor believes, to *O. olivacea*, but to *O. ispida*.

28. OLIVACEA (f. 46, 47, 48, 51, 52, 53), *Meusch.*—Oblongo-subfusiformis, lactea, lineis purpureo-fuscis angulatis longitudinalibus in fasciis duabus fortioribus ad suturam fasciculatis notatâ; spirâ plus minusve acuminatâ, balteo subcarinato; columellâ ferè omnino plicatâ, callo antico angusto

quinqueplicato; aperturâ intus albâ; labio abraso.—A very familiar cream-coloured shell, reticulated and at the suture fasciculated with purple-brown zigzag lines.

29. VIOLACEA (f. 56), *Marrat.*—Ovato-subcylindrica, pallidè fulva, lineis angulatis fuscis et punctis notata, ad suturam fasciculata; spirâ breviusculâ, conicâ, balteo subcarinato, flammulis fuscis ornatâ; aperturâ latâ, intus pallidè purpureâ; columellâ sublævigatâ, callo antico angusto validè quadriplicato, labio pauci-punctato.—One of those peculiar shells that resemble many species, but cannot be distinctly assigned to any.

30. CÆRULÆA (f. 48–50), *Bolten;* O. episcopalis, *Lamk.*—Crassa, cylindraceo-ventricosa, utrinque obtusa, lactea, punctis aurantiis et lineis cæruleis longitudinalibus notata (variat maculis trigonis fuscis picta), balteo flammulato; columellâ tumidâ, plicis vix elevatis, callo antico tumido, plicis crassis validis rugato; aperturâ intus violaceâ; labio crasso, extus abraso. —Fig. 48 represents *O. lugubris* of Lamarck.

31. EMICATOR (f. 57–60), *Meuschen;* O. cruentata, *Sol.;* maculata, *Duclos;* guttata, *Lamk.;* aurata, *Link*, amethystina, *Bolten.*—Subfusiformis, crassa, albida, maculis angularibus variè picta; spirâ pyramidatâ, anfractibus planulatis, fasciculis linearum fuscarum marginatis, balteo purpureo maculato vel flammulato; columellâ distanter et validè plicatâ, callo antico solido, plicis tribus aut quatuor distinctis rugato; aperturâ intus subaureâ; labio crasso, extus abraso. —The spots are all angular, whatever their size and however disposed. The columella plaits are unequal, sometimes duplicated.

32. PERUVIANA (f. 61–65), *Lamk.;* O. Senegalensis, *Lamk.* —Lata, turbinata, frequenter angulata, purpurascens, plerumque strigis undulatis fuscis ornata; spirâ planulatim conicâ; columellâ subcarinatâ, vix plicatâ, callo antico angusto biplicato; aperturâ latâ, intus subroseâ; labio crasso, ad medium concavo.

33. STAINFORTHII (f. 66, 67), *Reeve.*—Ovato-subfusiformis, lactea, lineis angulatis longitudinalibus pallidè griseis et maculis paucis castaneis angularibus in fasciis duabus dispositis picta; spirâ depresso-convexâ, balteo flammulato; columellâ omnino validè et crebrè plicatâ, plicis calli anticè quatuor distinctis.

34. LENTIGINOSA (f. 68, 69), *Reeve.*—Oblongo-cylindracea, ad latera rectiuscula, albida, lineis rubescentibus angulatis sparsim notata, ad suturam fasciamque mediam lineis fuscis angulatis picta; columellâ plicis tumidis paucis distantibus rugatâ; spirâ pyramidali, balteo immaculato; aperturâ pallidè roseâ, labio crasso intus extusque abraso.—The teeth or folds of the columella and its anterior callus are thick and coarse.

35. MARMOREA (f. 70–72), *Martini.*—Cylindraceo-subturbinata, pallida, maculis albis cordiformibus fusco-marginatis ornata; spirâ mucronatâ; columellâ obsoletè plicatâ, calli antici plicis 3–4 acutis frequenter tinctis; labio ad medium subincrassato.—A pretty species, distinguished by bordered, heart-shaped white spots.

37. CAROLINIANA (f. 73, 74), *Duclos.*—Obtusè cylindracea, vix inflata, fulva, fusco piperita et fasciatim maculata; spirâ brevi, depressâ, apice mucronato picto, balteo fusco-flammulato; columellâ ferè omnino densè plicatâ; aperturâ intus violaceâ, labio crasso rotundo.—One of the most distinct species in this group (Mar.). Very nearly resembling *O. Labradorensis*, but with purple mouth and more numerous plaits on the ventral part of the columella.—ED.

38. SCITULA (f. 76, 77), *Marrat.*—Subcylindracea, anticè tumidiuscula, pallidè fulva, punctis angulatim dispositis interdum concurrentibus, maculisque fuscis sagittiformibus in fasciis duabus dispositis notata; spirâ concavo-conicâ, apice mucronato, balteo pallidè flammulato; aperturâ intus violaceâ; columellâ subroseâ, anticè et paulo post medium crebrè et tenuiter plicata, plicis calli antici, unâ posticâ latâ, tribus anticis angustatis; labio intus abraso, leviter punctato.—Like *O. bulbosa* in form, but without the tubercle on the anterior callus.

39. SANDVICHENSIS (f. 82), *Pease.*—Subturbinata, brevis, posticè acuminata, fulva, minutè rubro punctata, prope suturam castaneo maculata; spirâ pyramidatâ; columellâ paulo post medium plicatâ, plicis calli antici 4 latis validis; aperturâ intus albidâ, trifasciatâ, labio brevi abraso crasso punctato.—The only specimen I have seen is in Mr. Cuming's collection. It resembles *O. Duclosii* (Jaspidea) in form.

40. JASPIDEA (f. 78, 79).—Brevis, cylindracea, posticè conica, fulvo-grisescens, maculis pallidis rubro circumscriptis ad suturam medianmque maculis magnis fusco-nigrescentibus notata; spirâ conicâ, anfractibus planulatis; columellâ dimidiatim validè plicatâ, plicis calli antici paucis crassis fulvo tinctis; aperturâ intus fulvâ, breviusculâ, labio intus abraso, extus punctato.—With straight sides and a conical spire, marked with pale angular spots or spaces edged by dark reddish lines on a nebulous ground.

41. KALEONTINA (f. 92, 93), *Duclos*.—Subfusiformis, brevis, crassa, posticè pyramidata, salmonea, maculis rubescentibus trigonis angulatim dispositis notata; spirâ conicâ, lateribus planulatis; aperturâ breviusculâ, angustâ, labio crasso subplanulato; columellâ dimidiatim plicatâ, callo antico brevi, quinqueplicato.—The clear, three-cornered reddish-brown spots, angularly arranged, mark this species with peculiar distinctness.

42. POLITA (f. 80, 81), *Marrat*.—Parva, angusta, subfusiformis, polita, pallidè lutescens, maculis fuscis interstitiisque albis picta; spirâ pyramidatâ, elongatâ; columellâ validè plicatâ, plicis calli antici 4, luteo tinctis; aperturâ intus pallidè violaceâ, labio intus abraso.—The long spire dotted with brown, the narrowly fusiform shape and high polish, together with the beautiful markings, render this an interesting shell.

43. OZODONA (f. 94), *Duclos*.—Oblongo-fusiformi, pallidè subcæruleâ, punctis fuscis lineatim dispositis, fasciisque duabus et ad suturam maculis magnis fuscis distinctis notata; spirâ attenuatâ; columellâ pauciplicatâ, callo antico albo validè 4-plicato; aperturâ brevi, lineari, intus purpureâ, labio crasso intus abraso.—This shell does not appear to bear any close relation to any other species.

44. PANNICULATA (f. 83, 84), *Duclos*.—Oblongo-subfusiformis, posticè subacuminata, pallida, lineis rufescentibus reticulatâ, interstitiis trigonis, ad suturam validè maculata; spirâ conicâ, balteo angustato; columellâ ferè omnino plicatâ, callo antico quadriplicato, plicis distinctis; aperturâ intus pallidè fulvâ, labio crasso rotundo.—A very distinct and beautiful species. The shell figured is a broad variety.

45. AUSTRALIS (f. 85–88), *Duclos*.—Angustè ovato-fusiformis, pallidè cærulea, lineis rubris undulatis reticulata, ad

suturam castaneo maculata, balteo purpureo flammulato; spirâ conicâ, obtusiusculâ, suturâ nigro maculatâ; columellâ leviter plicatâ; aperturâ angustâ, anticè paulo expansâ, labio incrassato intus fusco tincto.—Subject to great variation in markings and colour, as seen in the figures.

46. PAXILLUS (f. 89), *Reeve.*—Crassa, fusiformis, subangulata, lactea, lineis angulatis longitudinalibus pallidè notatis ad suturam castaneo maculata; spirâ pyramidatâ; balteo angusto, tortuo; columellâ validè pauci-plicatâ; callo antico angusto 2- vel 3-plicato, plicis validis; aperturâ intus pallidâ, labio incrassato pallidè punctato.—A short, thick, angular shell, strongly spotted at the suture.

47. NITIDULA (f. 90, 91), *Duclos.*—Angulata, subturbinata, crassa, brevis, albida, longitudinaliter pallidè lineis griseis notata, bifasciata, albo punctata, ad suturam maculis castaneis bifidis ornata; spirâ conicâ, anfractibus planulatis, apice violaceo; balteo angusto, tumido, distanter punctato; columellâ pauci-plicatâ, plicis calli antici 3–4 validis; aperturâ intus luteâ, labio crasso infra angulum compresso, intus abraso.—In form resembling *O. paxillus,* but very beautifully and delicately marked.

48. CALDANIA (f. 97), *Duclos.*—Oblongo-subovata, pallidissimè fulva, lineis fuscis undulatis ornata; spirâ rotundo-subacuminatâ; columellâ omnino tenuiter plicatâ, plicis calli tribus; aperturâ intus fuscâ, labio tenui intus rubro punctato.—A small, ovate species, with wavy lines.

49. HEMILTONA (f. 96), *Duclos.*—Obtusè subcylindracea, subventricosa, pallidè salmonea rubro-punctata; spirâ depressâ; columellâ omnino plicatâ, plicis calli antici validis; aperturâ intus salmoneâ, labio attenuato.

50. MULTIPLICATA (f. 95), *Reeve.*—Oblongo-cylindracea, pallidè fulva, lineis pallidis angulatis longitudinalibus concinnè notata, interruptim bifasciata, ad suturam fasciculatim lineata; spirâ pyramidali, subrotundâ; plicis columellæ et calli antici tenuissimis numerosis; aperturâ intus purpureâ, labio intus abraso punctato.—Very finely zigzag-marked. The very fine plaits on the columella distinguish this from other species.

51. INTERTINCTA (f. 98, 99), *Carpenter.*—Subfusiformis, subangulata, pallidè fulva griseo bifasciata, minutè fusco-punctata, balteo suturâ labioque castaneo maculatis; colu-

mellâ ferè omnino plicatâ, plicis calli antici 4 validis.—Closely allied to *O. punctata*, Mar.

52. NOBILIS (f. 120–122), *Reeve.*—*O. tremulinæ* similis, lateribus rectiusculis; columellæ plicis frequenter validioribus; spirâ magis pyramidatâ.—The variations in colour and markings seem to be interchangeable between this and *O. tremulina*. There is no constancy in the supposed characteristics of form, such as the greater elevation of the spire and straightness of the sides in *O. nobilis*, of which f. 120, 121 may be taken as typical.—ED.

53. PICA (f. 111–113), *Lamk.*—Crassa, lata, ventricoso-cylindracea, alba, pallidissimè tincta, maculis fuscis magnis ad margines angulatis picta; columellâ tumidâ, plicis irregularibus validis, callo postico elevato, callo antico tumido, albo validè quadriplicato; labio crasso, extus complanato.—The creamy whiteness and tumidity of the columella and outer lip, the pied character of the painting in the type, and the solid fulness of the form, seem to give this shell a claim to distinction.

54. PONDEROSA (f. 104), *Duclos.*—*O. picæ* similis, latior, brevior, crassior, pallidè purpureo fluctuata; aperturâ intus subaureâ.—Is this more than a thickened and short variety of *O. pica?*—ED.

55. PORPHYRITICA (f. 105–110), *Martini;* O. erythrostoma, *Lamarck;* miniata, *Bolten.*—Quam *O. tremulinæ* magis acuminata, variè picta; aperturâ intus aurantiâ.—Distinguished from *O. tremulina* and others of the group, by the orange interior of the aperture.

56. TREMULINA (f. 116–118), *Lamk.*—Oblongo-subcylindracea, fulvo-rubescens, strigis undulatis et angulatis purpureo-fuscis et fasciis duabus macularum castanearum picta; spirâ conico-depressâ, balteo diviso anticè flammulato; columellâ obsoletè plicatâ, callo postico producto, callo antico angusto, quadri- aut quinqueplicato, frequenter aurantio tincto; aperturâ intus pallidè fulvâ, labio externo posticè subangulato, medio frequenter depresso et coarctato, aurantio picto.—Although the typical variety is different enough from *O. nobilis*, it is almost impossible to distinguish the variously painted and formed intermediate varieties.—ED.

57. ZEILANICA (f. 129), *Lamk.*—Quam *O. nobilis* et *O. tremulina* magis angustata; labio tenui, intus fusco-margi-

nato.—The narrowness of form and singular markings of this selected variety are the reasons for its separation from *O. nobilis* or *O. tremulina* by Lamarck.

58. FUMOSA (f. 119), *Marrat.*—*O. nobili* similis; colore cinereo; labio haud tantum incrassato, intus fusco marginato; quam *O. Zeilanica* magis elongata; spirâ magis pyramidatâ.—Wider than *O. Zeilanica*, and separated from *O. tremulina* on account of its smoky colour, and undeveloped, brown-bordered lip.—ED.

58*. TENEBROSA (f. 177), *Marrat.*—Quam *O. nobilis* magis cylindrica, utrinque obtusa, densè fuscata, strigis maculisque nigrescentibus obscurè variegatâ; labio vix incrassato, intus fusco marginato.—Another of the forms separated from *O. nobilis* or *O. tremulina*, darkly coloured, thin-lipped and more cylindrical than the preceding.—ED.

59. ORNATA (f. 102, 103), *Marrat.*—Oblongo-cylindracea, angustata, pallidè cinerea, strigis griseis undulatis longitudinalibus et fasciis duabus fusco maculatis picta; spirâ apiculatâ, brevi, callosâ, rotundâ; columellâ tumidâ, obsoletè plicatâ, plicis calli antici tribus aut quatuor validis; aperturâ intus violaceâ.

60. CONCINNA (f. 100, 101), *Marrat.*—Quam *O. nobilis* magis angustata; aperturâ intus violaceâ; spirâ subapiculatâ.—This shell partakes of the characters of both *O. nobilis* and *O. irisans*, but two shells so widely differing cannot be connected (*Marrat*).

61. SOVERBII (f. 114, 115), *Marrat.*—Oblongo-subovata, albida, lineis purpureis pallidis longitudinaliter strigata, maculis rubris angulatis in fasciis duabus dispositis ornata; spirâ depressâ, anfractibus canaliculatis, balteo purpureo maculato; columellâ usque ad terminum posticum plicatâ, plicis brevibus, plicis calli antici quinque distinctis; aperturâ intus albâ, labio intus leviter abraso.—I cannot compare the present species with any Olive known to me.

62. SERICEA (f. 130, 131, 132), *Bolten.*—Oblongo-subovata, utrinque rotundata, ventricosa, crassa, albida vel salmonea; lineis numerosis tenuissimis reticulata, fasciis macularum ornata; spirâ depressâ, callosâ; columellâ tumidâ, posticè callosâ, calli antici plicis 4 validis; labio extus abraso, fusco

maculato.—Small shells belonging to this species resemble *O. sanguinolenta* in form, colour, and marking, but have not the red colour characteristic of that species.

63. Mauritiana (f. 133–140).—Latè subcylindracea, posticè expansa, nigra vel olivacea vel aurantia, plerumque fumosa, maculis vel lineis angulatis vel fasciis frequenter picta, balteo concolore; spirâ depressâ, callosâ; columellâ albidâ obsoletè plicata, plicis 4 frequenter fusco tinctis; aperturâ latâ, intus albâ, labio posticè expanso subangulato, ante angulum depresso extus abraso.—Although so great a difference exists between the type-forms of the present species and those of *O. elegans*, several varieties belonging to each are very closely allied.

64. propinqua (f. 141, 142), *Marrat.*—Quam *O. Mauritiana* magis angustata, *O. irisanti* approximata, densè fuscata, angulariter notata.—Narrower than *O. Mauritiana*, and very closely resembling *O. irisans*, var. f. 124.

65. Labradorensis (f. 146–148), *Bolt.*; funebralis, *Lamk.*—Dactyloidea, fumosa, lineis obscurè purpureis angulatim undulatis et macularum fuscarum fasciis duabus picta; spirâ depressâ, callosâ; columellâ plicis latis rugatâ, plicis calli antici 4 validis; aperturâ angustâ, pallidè subcæruleâ, labio incrassato rotundo.

66. leucostoma (f. 143–4–5), *Duclos.*—*O. Labradorensi* simillima; spirâ magis depressâ et callosâ.—I am inclined to think that this species is a callous-spired form of *O. Labradorensis*.

67. avellana (f. 149, 150), *Lamk.*—*O. Labradorensi* similis, sed salmonea, maculis vividè rubris notata.—Resembling *O. Labradorensis*, but salmon-coloured, with bright red spots. —Ed.

68. inornata (f. 155), *Marrat.*—Angusta, cylindrica, pallidè cinerea, maculis castaneis raris notata; balteo latè unifasciato; columellâ medio tumidâ, anticè posticeque plicatâ; spirâ acuminatâ; aperturâ angustâ, intus pallidè subcæruleo, labio extus densè punctato.—A narrow, ash-coloured shell, not apparently referable to any other species.

69. cana (f. 152), *Marrat.*—Oblongo-cylindracea, lateribus rectis, pallidè fulva, lineis longitudinalibus undulatis obscuris notata, et in fasciis duabus castaneo maculata;

spirâ breviter conicâ, anfractibus callosis, suturâ densè punctatâ; balteo flammulato; columellâ ferè omnino densè plicatâ, callo antico angusto, plicis quinque duplicatis; aperturâ intus albâ; labio intus fusco marginato.—Somewhat intermediate between *neostina* and some of the very narrow forms of *O. Mauritiana*, but differing from both in form and the numerous folds of the columella.

70. PACIFICA (f. 151), *Marrat.*—Cylindrica, oblonga, fulvo-lutescens, lineis pallidè fuscis undatis notata; spirâ breviter conicâ, anfractibus depressis canaliculatis; balteo tumido, undatim strigato; columellâ callosâ, plicis distantibus tumidis, ferè omnino continuis, plicis calli antici subalternatis; aperturâ intus subcæruleâ, labio intus extusque abraso, leviter arcuato.—I am indebted to Mr. Cutter, of Great Russell Street, for this and *O. arctata*, Marr., two interesting forms, of which Mr. C. has other specimens. I cannot compare the present shell with any other species (Marr.). The editor sees little reason for separating this species from *O. arctata*, still less for placing it in a widely separated group.

71. NEOSTINA (f. 153, 154), *Duclos.*—*O. Labradorensi* formâ simili, lineis undatis longitudinalibus strigata.—Marked with continuous waved longitudinal lines; otherwise like *O. Labradorensis* and *O. leucostoma*.—ED.

72. ELEGANS (f. 158, 159, 160), *Lamk.*—Ovato-inflata, cinerea, lineis angulatis et maculis nigrescentibus variè picta; spirâ brevi, anfractibus depressis tumidis; balteo lineato; columellâ obscurè plicatâ, plicis calli antici 4 aut 5 distinctis, subaurantiis; aperturâ intus albido-subcæruleâ, labio inerassato, extus abraso, maculato.—The type shells of this species are smaller than any of those belonging to the allied forms, viz. *O. tigrina* and *O. maura;* but the very closest affinity existing between the narrowly cylindrical form of *O. elegans* and small forms of *O. maura* is very apparent.

73. FLAVA (f. 156, 157), *Marrat.*—*O. infrenatæ* similis, sed rosea, rubro maculata; spirâ longiusculâ, callo antico columellæ vividè flavido.—Somewhat like *O. infrenata*, but less inflated, spire longer, and the plaits of the columella are very different, being bright yellow (*Marr.*). Should not this shell

rather be compared with *O. elegans*, from which it differs in little but colour?—Ed.

74. INFRENATA (f. 161), *Marrat.*—Quam *O. elegans* magis inflata, incrassata; spirâ brevissimâ, tumidâ, callo posticè producto, colore pallido, strigis undulatis pallidis fasciisque duabus castaneo maculatis picto, columellæ callo antico albido.—Somewhat resembling *O. elegans* and *O. inflata*, but the spire is much like that of *O. maura*.

75. ANGUSTATA (f. 182, 183), *Marrat.*—Oblongo-subcylindracea, vix inflata, pallidè fulva, lineis pallidè fuscis longitudinalibus, punctis fasciisque duabus maculatis notata; spirâ brevi, turbinatâ; balteo densè lineato; columellâ omnino tenuiter et densè plicatâ, plicis calli antici 4 latis moderatè elevatis; aperturâ intus albâ; labio tenui, intus fusco marginato.

76. GUTTULA (f. 165–168), *Martini.*—Ovato-cylindracea, pallidè fulva, maculis olivaceis bifasciata, lineis punctatis aurantiis longitudinalibus griseo marginatis notata; spirâ brevi, anfractibus rotundatis; columellâ obsoletè plicatâ, plicis calli antici fulvis vel aurantiis; aperturâ intus albidâ; labio crasso, extus abraso.

77. EVANIA (f. 162, 3), *Duclos.*—Quam *O. guttula* angustior, colore pallido, vividè et subdistanter notata.—Probably a variety of *O. guttula*. I have not been able to obtain specimens identical with Duclos' figures.

78. KEENII (p. 164), *Marrat.*—*O. Labradorensi* similis. (*Ed.*) Nearly allied to *glandiformi*, but is narrower, has the folds less forcibly developed, and the plaits more tumid.—MARRAT.

79. VIRIDESCENS (p. 169–172), *Lamk.*—*O. guttulæ* similis, plerumque lineis densis reticulata; columellâ anticè vividè rubro-aurantiâ.—Its orange-red columella and plaits are characteristic. Nearly all the dark forms have numerous pale triangles scattered over the body whorl. The light varieties have wavy longitudinal lines of a brown and yellow colour, somewhat approaching the shells belonging to *O. guttula*. The small forms of the *O. sericea* are very closely allied to this species (*Marr.*). Fig. 177 of this species, and

167 of *O. guttula*, seem to be the most characteristic respectively; the shading of the lines and spots by a different colour is characteristic of the latter.—Ed.

80. GLANDIFORMIS (f. 173–175), *Lamk.*—*O. eleganti* formâ similis, maculis acutè angulatis notata; plicâ posticâ calli antici perelevatâ.—Intermediate between *O. elegans* and *O. inflata*, having the posterior fold of the anterior callus much raised.

81. BULBOSA (f. 176, 184–192), *Martini.*—Crassa, inflata, variè picta; columellâ obsoletè plicatâ, plicis calli anticis 4, unâ posticâ tuberculari frequenter fuscâ; labio crasso, rotundato.—Subject to great variation in form and colouring, but distinguished by the tubercular elevation of the posterior fold of the columellar callus.

82. HOLOSERICA (f. 178–181), *Martini.*—Crassa, inflata, pallidè fulva, lineis griseis aut fuscis angulatis castaneo punctatis ornata, vel ferè omnino castaneo pallidè fasciato, balteo posticè albo aut pallido; spirâ breviter conicâ; columellâ obsoletissimè plicatâ, plicis calli antici obliquis elevatis; labio crasso, extus abraso.—Dark variety when small, difficult to distinguish from some forms of *O. maura*, but is otherwise distinct.

83. IRISANS (f. 123, 128, and 265.—Oblongo-cylindracea, variè picta, plerumque intus violacea; columellæ callo antico purpureo et aurantio frequenter tincto; spirâ plerumque brevissimâ, callosâ.—Chiefly characterized by its oblong form and depressed, callous spire. The elongated spire of fig. 128 is abnormal. *O. ornata* (f. 102, 103) strongly resembles fig. 127 of this species. *O. cylindrica* (f. 193, 194) is more rounded at the shoulders, and has more folds on the columella.—Ed.

84. CYLINDRICA (f. 193, f. 194), *Marrat.*—Quam *O. irisans* posticè magis inflata, plicis anticis magis numerosis.—Comparing this shell with *O. irisans*, as represented by fig. 127, there seems to be a greater roundness of shoulder and rather more columellar folds in the former.—Ed.

85. LIGNARIA (f. 195, 196), *Marrat.*—Quam *O. irisans* latior, colore fumoso, maculis angulatim acuminatis fasciisque

castaneis picta; plicis calli antici haud tantum obliquis magis profundè definitis.—The difference between this and some varieties of *O. irisans* would appear to consist in the smoky colour and rather stouter form. The folds are less oblique; the hinder one broad and flat.—Ed.

86. RUFULA (f. 197, 198), *Duclos.*—Angustè oblongo-cylindracea, fulvo-rufescens, maculis castaneis acutè trigonis, obliquè angulariter dispositis notata; spirâ conico-depressâ, balteo posticè pallido; columellâ ferè omnino tenuissimè plicato, plicis calli antici 4 validis luteis; aperturâ cæruleâ; labio fusco marginato.—A pretty little shell, marked in a very distinct manner.

87. BULBIFORMIS (f. 201–204), *Duclos.*—Inflato-subovata, cinerea aut fulva, minutè lineis angulatis vel punctis in cingulis duabus interruptis fortioribus notata; spirâ brevissimâ, callosâ, apiculatâ; columellâ leviter plicatâ, callo antico angusto, plicis arcuatis tinctis; labio incrassato, extus intusque abraso, albo fusco vel aurantio.—The ash-colour prevails in the different varieties.

88. CLARA (f. 199, 200), *Marrat.*—Subfusiformis, moderatè ventricosa, suprà declivis, cupreo-fulvescens, lineis angulatis et fasciis duabus castaneis notata; spirâ mucronatâ, brevi, convexâ; apice fusco-purpurascente; columellâ ferè omnino plicatâ, callo antico augusto, plicis validis; aperturâ intus pallidè purpureâ; labio crassiusculo, intus fusco lineato.—This species has sloped shoulders and a purplish tint in the mouth. *O. calosoma* is mentioned by Mr. Marrat as one of the nearest, but not a very near, resemblance.

89. SIMILIS (f. 205–207), *Marrat.*—Oblongo-cylindracea, posticè rotunda, flavido-fulva, lineis punctatis longitudinaliter notata, maculis castaneis irregulariter bifasciata; spirâ parvâ; apice subpurpureo, balteo posticè maculato, anticè undulatim lineato; aperturâ latiusculâ, intus purpureâ; columellâ densè plicatâ; labio crassiusculo, extus punctato.—The shoulders are much rounded and the markings fine.—Ed. This is a very distinct form, and why I gave it the name it puzzles me to know. (*Mar.*)

90. PINTAMELLA (f. 212, 213), *Duclos.*—Subfusiformis, ventricosa, posticè subrotunda, pallida, lineis longitudinalibus fuscis angulatim undatis aurantio-marginatis notata; spirâ

parvâ, depressâ; apice mucronato; columellâ densè et acutè plicatâ, callo antico lato, plicis luteo-tinctis quatuor; aperturâ intus albido-cæruleâ; labio tenui, acuto, intus punctato.—A pretty little species, with yellow-shaded, brown, wavy lines.

91. CALOSOMA (f. 214, 215), *Duclos.*—Ventricoso-fusiformis, lactea, pallidè lineis angulatis et fasciis duabus aut tribus litteratim maculatis notata, balteo purpureo pauci-punctato; columellâ tenuiter plicatâ, callo antico angusto, plicis perobliquis pancis; aperturâ latâ, intus castaneâ.

92. DACTYLIOLA (f. 208–11), *Duclos.*—Ovato-cylindracea, olivacea vel fumoso-fusca, minutè lineatim punctata vel undulatim lineata, nonnunquam castaneo maculata; spirâ brevissimâ; columellâ albidâ, obscurè plicatâ, plicis calli antici 4–5 distinctis; labio recto, extus abraso et punctato.

93. ATHENIA (f. 216, 217), *Duclos.*—Quam *O. dactyliola* magis cylindracea, lineis undulatis pallidis flammulisque castaneis aut nigrescentibus ornata; columellæ plicis pancis validis.—This small, *O. maura*-like shell, is between *O. dactyliola* and *O. todosina*, but sufficiently distinct from either.

94. TIGRINA (f. 222–224), *Meuschen.*—Cylindracea, medio subinflata, leviter angulata, pallidè fulva, maculis magnis purpureo-castaneis angulariter dispositis notata; spirâ brevissimâ, callosâ; columellâ purpureâ, plicis tumidis subdistantibus rugatâ, plicis calli antici tribus vel quatuor, quarum posticâ elevatâ tumidâ fuscatâ; aperturâ intus purpureâ; labio incrassato, subangulato.—Distinguished by the large spots and purple mouth and columella.

95. LEPIDA (f. 218, 219, and 474).—Subcylindrica, pallida, fasciis lineis maculisque angularibus notata; spirâ brevissimâ, callosâ, apice acuminato; columellâ densè plicatâ, plicis calli antici numerosis distinctis; aperturâ intus pallidissimè violaceâ; labio crassiusculo, extus abraso.

96. TODOSINA (f. 220, 221), *Duclos.*— Oblongo-subcylindracea, cinerea, lineis angulatis litteratis reticulata; spirâ acuminatâ, callosâ, ad suturam punctatâ, balteo fusco lineato; columellâ leviter et tenuiter plicatâ, plicis calli antici quatuor subtransversis; aperturâ intus violaceâ.—Of a darker colour, narrower and less cylindrical in form, and more pointed at the apex than *O. lepida*.

97. VOLVAROIDES (f. 225, 226).—Cylindraceo-subelongata, castanea vel flavida; spirâ brevi, callosâ, columellâ densè et tenuiter plicatâ, plicis calli antici tenuibus duplicatis; aperturâ intus sordidè subviolaceâ, labio ad medium subsinuato. A uniformly-coloured chestnut shell, of no very distinctive characters.

98. PICTA (f. 227–228), *Reeve*. — Cylindraceo-subinflata, fulvo-grisescens, lineis punctisque rubro-griseis angulatis notata; balteo unifasciato; columellâ densè et acutè plicatâ; aperturâ intus subcæruleâ, castaneo marginatâ, labio tenui. —The specimens of this, as figured by Reeve and in this monograph, have the appearance of undeveloped shells.

99. ARCTATA (f. 229, 230), *Marrat*. — Quam *O. Pacifica* (sp. 70) magis arctata et cinerea.—This, as observed by Mr. Marrat, is the narrowest of any species in proportion to its length,—in this respect alone, as the Editor thinks, differing from *O. Pacifica*. The comparatively pale colour of the latter can scarcely be regarded as an important distinction.

100. SIDELIA (f. 231, 232), *Duclos*.—Oblongo-cylindracea, subcinerea, prope suturam unifasciata, dorso unimaculato, ventro pallidè lineato; spirâ brevissimâ; anfractibus rotundis, balteo flammato; columellâ tumidè plicatâ; aperturâ pallidè fuscâ.—Described and copied from the figure in Duclos.

101. CARNEOLA (f. 333–235), *Solander*.—Oblongo-subovata, supra medium subangulata, alba et carnea, aurantio fasciata; spirâ brevissimâ, callosâ; columellâ validè pauci-plicatâ, calli antici plicis quatuor crassis, posticâ elevatâ; aperturâ intus roseâ; labio albo, utrinque abraso.

102. BLANDA (f. 236–237).—*O. pictæ* similis, magis ventricosa; labio incrassato.—Very strongly suspected to be *O. picta* in a mature state, although wanting the dark band or blotch of colour on the belt.—ED.

103. FABA (f. 238, 239), *Marrat*. — Oblongo-cylindrica, fulva, lineis distantibus fuscis angulatis notata; spirâ brevissimâ, callosâ; columellâ plicatâ, plicis calli antiqui quatuor transversis distinctis; aperturâ intus purpureâ vel fuscâ, labio crasso.—The back view of *O. sidelia* in Duclos is pro-

bably that of an abnormal variety of this species, while the front view resembles the shells here figured.—Ed.

104. ISPIDULA (f. 240–254), *Linnæus.*—Oblongo-subfusiformis, lactea, variè punctis fasciis lineisque picta; spirâ acuminatâ, conicâ, anfractibus rotundis; columellâ obsoletè plicatâ, callo antico quinque-plicato, inter plicam marginalem latam, tumidam, et plicas anticas canaliculato; aperturâ intus castaneâ.

105. FLAVEOLA (f. 255), *Duclos.*—Oblongo-subcylindracea, aurantia; spirâ brevissimâ; columellâ obsoletissimè plicatâ, callo antico lato tumido, plicis subobsoletis.—An orange shell, approaching some forms of *O. ispidula.*

106. OLORINELLA (f. 256), *Duclos.* — Alba, *O. ispidulæ* similis, sed plicis columellæ numerosis; spirâ elevatâ.—A white shell inside and out, with numerous folds on the columella and mouth,—short in proportion to spire.

107. CANDIDA (f. 257), *Lam.*—*O. ispidulæ* simillima, alba; aperturâ haud castaneâ.—I do not know why this is not to be reckoned among the numerous variations of *O. ispidula*, except it be for the absence of chestnut colour in the interior. —Ed.

108. UNDATELLA (f. 258 to 262), *Lamk.*—Breviter ovata, subcinerea, lineis arcuatis parvis in seriebus tribus dispositis, vel lineis angularibus irregularibus notata, balteo duplicato, parte posticâ latissimâ, fulvâ, flammulis strigatâ, anticâ angustâ; spirâ elevatâ; anfractibus rotundis, suturâ lineatâ, apice mucronato; aperturâ intus fuscâ, labio leviter incrassato.—The *O. nidulina* of Duclos evidently belongs to this pretty little species, *vide* fig. 262.

109. CIRCINATA (f. 277), *Marrat.*—Oblongo-cylindracea, posticè rotundata, subcinerea, lineis punctatis angulatis et insterstitiis albidis angularibus notata, fusco interruptim bifasciata, balteo punctato et flammulato; spirâ conicâ elongatâ, acutâ, suturâ fasciculatâ; columellâ ferè omnino plicatâ, plicis calli antici quinque distinctis; aperturâ intus pallidè cæruleo-albâ, labio intus abraso et punctato.—The Brazilian representative of the West Indian *O. litterata.* It is more rounded and symmetrical and less oblique, and the lip is not so spread at the posterior end.

110. LITTERATA (f. 266, 267), *Lam.*—Quam *O. scripta* magis elongata, posticè attenuata, super lineas reticulatas, lineis castaneis scriptiformibus acutè angulatis transversis notata. —In *O. scripta*, which is a shorter shell, the greatest expansion is towards the spire; in *O. litterata* the shell tapers towards the spiral end, and over the small reticulated markings are long angular writing-like markings.

111. MERCATORIA (f. 268, 269), *Marrat.*—Subfusiformis, crassa, ventricosa, lactea vel pallidè rosea, lineis angulatis rubris aut griseis angulatis reticulata, ad suturam fasciculata; spirâ breviter conicâ; columellâ plicis crassis paucis subdistantibus rugata, callo antico prope terminum purpureo maculato, plicis perobliquis; labio crasso, intus abraso, extus fusco laqueato.—A stouter shell than the normal form of *O. olivacea* (*reticulata*, Lamk.).

112. NIVOSA (f. 276, 472), *Marrat.*—*O. mercatoriæ* similis, sed pallida, magis cylindracea.—A full-bodied shell, with narrow aperture.

113. SCRIPTA (f. 266, 267), *Lamk.*—Oblongo-subcylindrica, posticè lata, anticè subattenuata, subfusca, lineis grisescentibus minutè reticulata, irregulariter fasciata, suturâ fasciculatâ; spirâ conicâ; columellâ obsoletè plicatâ, callo antico angustissimo; aperturâ intus violaceâ; labio posticè expanso, subangulato.—The posterior part of the outer lip tends to expansion, and the body whorl is broader at that part.

114. MUSTELINA (f. 272, 273), *Lamk.*—Oblongo-cylindracea, utrinque subtruncata, crassa, griseo-fulva, lineis angulatim undulatis longitudinaliter notata; spirâ brevi, latâ, suturâ acutâ, punctatâ; columellâ omnino plicatâ, posticè in callum elevatum terminanti, plicis calli antici paucis, validis perobliquis; aperturâ intus violaceâ; labio crasso, posticè elevato, intus extusque abraso.

115. MUCRONATA (f. 274, 275), *Marrat.*—Cylindracco-subconica, fulvescens, lineis rubris angulatim undulatis notata; spirâ depressâ; anfractibus callosis, apice mucronato, balteo subcarinato, flammulato; columellâ tenuiter omnino plicatâ, plicis calli antici latis concoloribus; aperturâ intus sordidè albâ.—Allied to *O. mustelina*, but distinguished from that species by its fine and close columellar plaits. The texture and pattern are also different. The spire is very peculiar—hence the name.

116. BRAZILIANA (f. 278, 279), *Lamarck.*—Subconica, pallidè fulva, albo strigata, lineis griseis prope suturam notata; spirâ brevissimâ; anfractibus paucis callosis, balteo lato subcarinato; columellâ validè callosâ, plicis anticis perobliquis callosis; aperturâ latâ; labio tenuiusculo, medio sinuato.—The most conelike of all the species. Its affinity with *O. gibbosa* of Born is very close.

117. OVATA (f. 281, 282), *Marrat.*—Quam *O. Braziliana* magis ovata; columellâ posticè valde callosâ; callo antico angusto, plicis tribus magnis quarum mediâ obliquè striatâ, armato.—A more ovate shell than *O. Braziliana*, with the middle one of the three anterior folds striated or divided into lesser plaits. This is not clearly shown in the figure.

118. VESCICA (f. 280), *Gmel.*—Latè ovata, patula, griseo-fulva, castanea, bifasciata; spirâ brevissimâ, calloso-tuberculatâ, balteo latissimo subcarinato; columellâ crassâ, calloso-tuberculatâ, plicis calli antici duabus tortuosis, posticâ duplicatâ; labio dilatato, sinuoso, intus castaneo marginato.—Included in Lamarck's *O. auricularia*, of which it may possibly be a very exaggerated form.

119. AURICULARIA (f. 283, 284, 285).—Ovato-patula, pallidè grisea, castaneo lineata aut griseo punctata; spirâ callosâ, apiculatâ; balteo lato, subcarinato, aurantio-fulvo, fusco-purpureo nebulato, lineis impressis spiralibus tenuiter striato; columellâ callosâ, plicis calli antici duabus, posticâ divisâ; aperturâ dilatatâ, intus castaneâ, anticè latissimâ; labio sinuato, tenui, margine pallido.

120. CINCTA (f. 286, 287), *Reeve.*—Subovata, patula, posticè attenuata, pallidè fulva, medio fasciâ fuscâ cincta, ad suturam fusco fasciatim maculata; spirâ obtusè conicâ, balteo lineato; columellâ arcuatâ, lævigatâ, plicis calli antici duabus, posticâ striatâ; aperturâ posticè contractâ, anticè expansâ, intus pallidè fulvâ, castaneo bifasciatâ; labio tenui, arcuato, intus punctato. The figure is copied from that in Reeve. The species is closely allied to *O. auricularia*.

121. BIPLICATA (f. 288, 289, 290), *Sowb.*—Ovato-fusiformis, pallidè grisescens, longitudinaliter fusco lineata; spirâ conicâ, acuminatâ, balteo angusto subcarinato violaceo; columellâ callosâ, anticè in plicis duabus tortuosis violaceis terminanti; aperturâ pyriformi, pallidè violaceâ.—The speci-

mens figured show the extreme variations to which this species is subject.

122. Orbignyi (f. 458), *Marrat.*—Ovato-subfusiformis, fusco-plumbea, nonnunquam medio unifasciata; spirâ breviter conicâ, balteo pallido fusco-flammulato; columellâ arcuatâ, lævi, plicis calli antici 4–5 approximatis; aperturâ intus fuscâ; labio tenui, margine pallido.—Allied to *O. biplicata*, but the folds, the colour, and the form, all differ from that species.

123. zenospira (f. 291, 292, 293), *Duclos.*—Latè ovata, subcærulea, fusco punctata, flammulata, vel maculata; spirâ latè turbinatâ, callosâ, balteo carinato posticè luteo flammulato, anticè maculato; columellâ callosâ, prope callum anticum tenuiter plicatâ, ad terminum uniplicatâ; aperturâ brevi, intus coloribus externis pictâ; labio tenuissimo.—This pretty little shell is either spotted or marked with zigzag lines, and, the lip being thin, the same patteru shows brightly through.

124. micans (f. 294, 295, 296), *Solander.*—*O. zenospiræ* simillima, haud tautum ventricosa, posticè plerumque tumidior, lineis longitudinalibus elongatis angulatim undulatis notata, plicis calli antici duabus aut tribus, unâ plicato-striatâ.—The upper part is generally tumid, and the folds on the basal callus double or treble.

125. mille-punctata (f. 297 to 300), *Duclos.*—Ovato-subconica, posticè tumida, anticè lateribus compressis alba aut fulva, punctis minutissimis in fasciis duabus angulatim dispositis ornata, aut ferè omnino castaneo-grisea; spirâ conicâ, callosâ; columellâ callosâ, lævi, callo antico unipunctato, uniplicato, supra plicam tenuiter striato; labio tenui, diaphano.—There is a gradation in form between this and the two preceding species.

126. gibbosa (f. 301 to 310), *Born.*—Latè turbinata, vel ovata, vel angustè cyliudraceo-acuminata, grisea, alba aut fulva, fusco aut griseo nebulata et variegata, ad suturam maculata; spirâ callosâ, anfractu penultimo rotundo lato; balteo duplicato, latissimo, posticè aurantio-fulvo, fusco-flammulato, anticè carinato albo, arcuatim maculato; columellâ posticè validè callosâ, infra medium pauciplicatâ, callo antico biplicato, plicâ posticâ striatâ; aperturâ intus

albidâ; labio utrinque abraso, margine tenui.—The belt is divided into two portions by a sort of keel, and the upper portion is orange and very deep. The variations in form are extreme.

127. LUTARIA (f. 316, 317), *Bolten.*—Elongato-subfusiformis, grisea aut fulva, angulatim nebulata, prope suturam latè unifasciata et angulatim lineata; spirâ callosâ, productâ, acuminatâ; balteo diviso, fulvo, flammulis magnis fuscis aut griseis ornato; columellâ callosâ, infra medium inflatâ, plicis obliquis septem usque ad terminum ornata.—It is not easy to distinguish by any definable characters between this species and the subulate forms of *O. gibbosa*, but the columellar callus is strongly plaited and protuberant below the centre. —ED.

128. ACUMINATA (f. 319, 320), *Duclos.*—Elongato-subfusiformis, grisea aut fulva, fusco angulatim nebulata, fusco ad suturam maculata; spirâ elongatâ, acuminatâ, balteo diviso lato; columellâ angustâ, anticè obliquè plicatâ; aperturâ brevi; labio tenui, medio subexpanso.—Intermediate between *O. subulata* and *O. testacea*. Nothing like the shells figured by Reeve.

129. LABUANENSIS (f. 311, 312), *Marrat.*—Angustè subfusiformis, fulva aut rosea, anticè fasciâ latissimâ castaneâ aut rubrâ a medio usque ad balteum cincta; spirâ conicâ; anfractibus tumidis, suturâ angustâ profundâ, margine nonnunquam fasciculato, balteo concolori; columellâ densè plicatâ, plicis duplicatis, plicis calli antici tribus, bifurcatis; aperturâ angustâ, brevi; labio extus abraso.

130. ANNOTATA (f. 313 to 315), *Marrat.*—Lanceolata, cinerea, lineis irregularibus longitudinalibus maculisque nebulata; spirâ elongato-pyramidatâ, suturâ concinnè nigro punctatâ; balteo diviso, parte posticâ latâ aurantio-fulvâ rubro flammulatâ, parte anticâ angustè flammulatâ; columellâ tenuissimè plicatâ, plicis calli antici quinque tortuis distinctis; aperturâ intus cæruleo-albâ; labio tenui, intus maculato.

131. CAUTA (f. 327-329), *Marrat.*—Angustè subcylindracea, flavido-fulva, flammulis undatis magnis inter areas maximas immaculatas obliquè angulatis notata; spirâ conicâ, anfractibus convexis; balteo diviso, posticè aurantio-fulvo,

anticè supra plicas purpureo maculato; columellâ tenuissimè plicatâ, plicis calli antici numerosis obliquis; aperturâ intus cæruleo-albâ, labio tenui, fusco-marginato.

132. HIEROGLYPHICA (f. 325), *Reeve*, pl. xxiv. f. 68.—Oblonga, posticè tumidiuscula, eburnea, maculis hieroglyphicis fuscescentibus triseriatim cingulata; spirâ acuminatâ, anfractibus convexiusculis; columellâ densè plicatâ; labio acutè abraso.—A shell of very distinct appearance.

133. MODESTA (f. 326), *Reeve*, f. 83.—Subcylindracea, lutea, medio fulvo suffusa, lineis fuscis litterata, balteo flammulato; columellâ densè plicatâ; aperturâ intus albidâ; labio intus bilineato.—Described and figured from *Reeve*.

134. LÆVIS (f. 330, 331), *Marrat*.—Cylindraceo-oblonga, pallidè fulva, concinnè lineis tenuibus undulatim angulatis et fasciis duabus litteratis notata; spirâ breviusculâ, apiculatâ, anfractibus paucis rotundis; columellâ distanter pauciplicatâ, plicis calli antici 5–6 validis, balteo fusco flammulato; labio tenui, fusco marginato.—A delicately marked little shell.

135. STEERII (f. 321–324), *Reeve*.—Ancillariæformis, patula, pallidè grisea, vel alba, vel fulvo-grisea transversè tenuissimè interruptim ciliata; spirâ acuminatâ, anfractibus rotundis; balteo pallidè, obliquè strigato; columellâ albâ, posticè lævigatâ, anticè plicatâ, callo antico angusto, plicis medianis elongatis perobliquis, ultimâ obliquè subtruncatâ; aperturâ intus intensè fuscatâ; labio dilatato, ad medium sinuato, margine tenui, albo.

136. TESTACEA (f. 334, 335), *Duclos*.—Oblongo-fusiformis, robusta, grisea, transversè minutissimè quasi-ciliata, maculis purpureo-fuscis notata; spirâ elongato-pyramidatâ, suturâ litteratâ; balteo lato, fulvo, marginato; columellâ posticè tenuissimâ, plicis calli antici elongatis perobliquis, ultimâ subtruncatâ; aperturâ brevi, intus pallidâ; labio intus castaneo marginato.—A more solid shell than the preceding, with the aperture very short in proportion to the elongately acuminated spire.

137. MEGALOSTOMA (f. 336–340), *Gmel.*—Ancillariæformis, patula, subventricosa, anfractibus ventricosis, grisea, alba, aut pallidè fulva, maculis fusco-griseis notata; spirâ acumi-

natâ, elongatâ; columellâ anticè castaneâ, elongato-perobliquè plicatâ; aperturâ latâ, brevi; labio arcuato, medio et anticè dilatato, intus prope suturam incrassato.—Less stout than *O. testacea*, generally of a pale colour, the whorls of the spire convex, and the anterior callus-folds—except in the white variety—chestnut. I have examined many of the animals, and never found an operculum.

138. PALLIDA (f. 341-343), *Swainson.*—*O. hiatulæ* similis; spirâ breviori; aperturâ et columellæ callo antico lividis. Variat aurantio-fulvâ.—Like *O. hiatula*, but with shorter spire and less ventricose whorls. The interior of the aperture and the folds of the anterior callus are purplish-brown. The variety *O. indusica*, Reeve, is orange-buff, with pinkish interior.

139. CONTORTUPLICATA (f. 332, 333).—Ovato-subfusiformis, plumbea, transversè minutissimè striata, infra suturam fulvo unifasciata; spirâ conicâ, apiculatâ, callosâ, anfractibus rotundis; balteo supra et infra albo, medio aurantio; columellâ tortuosâ, callosâ, callo antico contorto, plicis duabus, posticâ divisâ; aperturâ intus fuscâ, pallidè unifasciatâ.—Very remarkable for the twisted folds of the anterior callus.

140. INTRICATA (f. 344, 345), *Marrat.*—Elongato-subfusiformis, subangustata, pallidè cinerea aut fulva, lineis latis pallidis griseo-fuscis undulatis notata; spirâ conicâ, acutâ, anfractibus planulatis, suturâ maculis castaneis magnis notatâ; balteo diviso, parte posticâ latâ, pallido; columellâ callosâ, anticè densissimè plicatâ; callo antico biplicato, inter plicas profundè sulcato; aperturâ intus pallidâ; labio subincrassato, intus maculato.—This species resembles *O. nebulosa*, but differs in form, colour, and columellar plaits. It is perhaps nearer the *O. ancillaroides*.

141. ANCILLAROIDES (f. 346), *Reeve.* — Oblongo-subfusiformis, griseo-fulva, ad suturam castaneo maculata; columellâ plicatâ, albâ, calli antici plicis duabus tortuosis validis acutis; spirâ subelevatâ, anfractibus paucis, posticè rotundis; aperturâ breviusculâ, intus sordidè albâ; labio utrinque abraso, margine acuto.—Not unlike *O. testacea* in form.

142. NITELLINA (f. 347), *Duclos.*—Ancillariæformis, angusta, rufo-fulva; spirâ elongato-conicâ, anfractibus convexis, bal-

teo diviso; columellâ anticè rotundâ, plicis numerosis rugosâ, plicis calli antici duabus, anticâ striatâ; labio tenui, margine rotundo.—Even more Ancillaria-shaped than the preceding.

The following have a thin, horny operculum.

143. COLUMELLARIS, (f. 348, 349), *Sowb.*—Obliquè ovata, posticè acuminata, anticè expansa, longitudinaliter partim tenuissimè striata, pallidè fulvo-plumbea, fasciis plumbeis latis cincta; spirâ parvâ, suturâ fusco lineatâ, anfractu penultimo uno latere valde calloso, balteo albido unifasciato; columellâ medio et supra tumidè callosâ, albâ, anticè acuminatâ, uniplicatâ, ad marginem propè plicam unidentatâ; aperturâ tortuâ, posticè compressâ, angustatâ, anticè expansâ, intus fasciis duabus castaneis latissimis pictâ; labio posticè depresso, subemarginato, incrassato.—Remarkable for the tooth-like swelling on the anterior margin of the columella.

144. SEMISTRIATA (f. 350, 351), *Gray.*—Quam *O. columellaris* magis elongata et posticè attenuata, anfractu ultimo posticè dimidiatim densissimè striato, anticè lævigato.—Of a more elongated and posteriorly-attenuated form than *O. columellaris*, having the upper half of the last whorl strongly and closely sulcated.

145. AFFINIS (f. 352), *Marrat.*—Quam *O. columellaris* brevior, magis ventricosa; columellâ haud tantum callosâ.—A rounder shell than *O. columellaris*, and has not the callus so much developed.

146. ATTENUATA (f. 353), *Reeve.*—Testa parva, tenuis, distanter bifasciata, *O. columellari* similis. — Probably the young of *O. columellaris*.

147. ZONALIS (f. 354), *Duclos.*—Ventricoso-subfusiformis, subdiaphana, fasciâ plumbeâ et fasciâ fuscâ medio zonata; spirâ aperturam longitudine æquanti, pyramidatâ, ad suturam rubro-lineatâ, anfractibus paucis convexiusculis; columellâ posticè callosâ, castaneo unimaculatâ, anticè uniplicatâ, obscurè unidentatâ; balteo castaneo unifasciato; aperturâ brevi intus fasciatâ.—Nearly allied to *O. mutica*.

148. FIMBRIATA (f. 355), *Reeve.*—*O. muticæ* simillima, parva, angusta, tenuior, medio purpurea; spirâ breviori.—I can see no special reason for separating this from *O. mutica*, Say. (*Mar.*)

149. RUFIFASCIATA (f. 449), *Reeve.*—*O. muticæ* similis, post medium tumidiuscula, medio, ad suturam, supra balteum medioque baltei castaneo fasciata.—Chiefly distinguished by the chestnut bands from *O. mutica*, Say.

150. PUSILLA (f. 356–358), *Marrat.*—Parva, ovato-fusiformis, fusca vel grisea, nonnunquam albo fasciata; spirâ conicâ, obtusiusculâ, balteo concolore; columellâ arcuatâ, callosâ, incrassatâ, callo antico validè quadriplicato; aperturâ intus pallidâ; labio abraso, margine acuto; operculo semiovato.—In *O. mutica* the plaits are close, on an arched callus; in *O. fimbriata* the plaits are wanting, but the callus is present; in *O. zonalis* there is only a single fold at the base, but four folds at the upper part of the callus.

151. MUTICA (f. 359-361 and 465–467), *Say.*—Breviter conico-fusiformis, grisea aut fulva, castaneo fasciata; spirâ conicâ, callosâ, suturâ rubro-lineatâ; balteo diviso, anticè castaneo unifasciato; columellâ albâ, callosâ, ad marginem aperturæ distanter bidentatâ; plicis calli antici duabus tortuosis; aperturâ parvâ, intus griseo-fuscâ; labio prope suturam incrassato, margine tenui.—The ends of the two small folds project in the form of an anterior and posterior tooth on the margin of the columella.

Of the following Species constituting the Genus OLIVELLA, Swainson, *many are known to have opercula.*

152. VOLUTELLA (f. 362–367), *Lamk.*—Lanceolatè subfusiformis, recta, solida, fusco-purpurea aut pallidè grisea aut fulva aut alba unimaculata, vel medio grisea, lineis undulatis longitudinalibus nebulata; spirâ conicâ, pyramidatâ, anfractibus planulatis, suturâ fusco lineatâ; balteo concolore, vel albo vel fusco maculato; columellâ callosâ, posticè fusco unimaculatâ, plicis calli antici numerosis subtransversis; aperturâ concolori; labio tenui, luteo; operculo tenui, elongato, utrinque rotundato.—Solid, straight, lanceolate, and generally of a uniform colour.

153. LEUCOZONIAS (f. 450, 451), *Gray.* — Ancillariæformis, lanceolata, tenuis, pallidè fulva, fusco punctata et undulatim lineata, ad suturam, infra medium et ad marginem baltei albo fasciata, balteo et suturâ fusco maculatis; columellâ tenuiter transversè plicatâ, plicis calli antici in plicis minoribus divisis.—Of a delicate fawn-colour, spotted with three white bands.

154. EXILIS (f. 452), *Marrat.*—*O. lanceolatæ* similis, sed plicâ elevatâ prope terminum deficienti.—The Editor regrets that he has failed to express in fig. 384 the raised fold on the inner edge of the columella, which would distinguish *O. lanceolata*, Reeve, from this shell.

155. DAMA (f. 368, 369).—Oblongo-fusiformis, solida, rectiuscula, inter areas albas inæquales fusco longitudinaliter lineata; spirâ elevato-conicâ, anfractibus calloso-convexis, suturâ rubro lineatâ; balteo albo, medio subcarinato, purpureo fasciato; columellâ posticè unimaculatâ, medio subarcuatâ, anticè unidentatâ, biplicatâ; aperturâ intus griseo-purpureâ; labio tenui, anticè dilatato.—This species varies very little; its purple interior and elongated form, as well as its colour, serve to distinguish it.

156. GRACILIS (f. 370–372), *Sowb.*—Lanceolata, angusta, fulva, supra medium albo unifasciata, ad suturam et in fasciis duabus lineatim rubro maculata; spirâ elongatâ, anfractibus vix convexis; columellâ anticè super plicas striatâ; aperturâ brevi; labio tenui.—A very beautiful lanceolate species.

157. PARVULA (f. 373–375), *Martini.*—Angustè subfusiformis, alba, medio pallidè fulva, angulatim pallidè lineata, infra suturam et supra balteum in fasciis duabus maculis magnis rubro-lineatis notata; spirâ obtusiusculâ, productâ, anfractibus convexiusculis; columellâ callosâ, arcuatâ, anticè obliquè unidentatâ, plicis calli antici duabus obliquis; aperturâ albâ; labio tenui, anticè expanso.—Rather more obtuse in form, callous in the columella, and coarser in the marking than the preceding. The columella also shows the notch or tooth observed in *O. columellaris*, etc.

158. LACTEA (f. 376), *Marrat.*—Quam *O. leucozonias* gracilior, ad suturam et ad marginem baltei concinnè lineatim

punctata.—The milky colour, smooth porcelain-texture, and distant spotting, are characteristic of this shell. It is allied to *O. nivea* and *O. gracilis*. The close columella-plaits, extending over the pillar, connect this with the African species, *O. leucozonias*. (*Mar.*)

159. VERSICOLOR (f. 377, 378), *Marrat.*—Parva, lanceolata, pallidè fulva, fusco ad medium subreticulata vel castaneo latè unifasciata, ad suturam et baltei marginem lineatim maculata; spirâ elevatâ, lateribus vix convexis, castaneo frequenter densissimè suffusa; aperturâ brevissimâ; columellâ variabili.—Mr. Marrat thinks this may possibly prove to be the same as *O. puelchana*, D'Orb. (copied, f. 461, 462). He has not seen that species; the description is unsatisfactory, and the characters of the columella in the specimens of *O. versicolor* are very variable.

160. MONILIFERA (f. 379), *Reeve.*—*O. versicolori* formâ similis, flammulis undulatis fulvis, posticè infra suturam tenuioribus, anticè medio et infra usque ad balteum magnis, et ad suturam punctis nigris minutissimis notata.—From specimens labelled in Reeve's writing. See *O. dealbata*, Reeve, to which this species is very closely allied.

161. DEALBATA (f. 381, 382), *Reeve.*—*O. moniliferæ* similis, medio aut immaculata aut flammulis paucis magnis ornata, ad suturam maculis lineatis distantibus notata.—Our fig. 381 is to be regarded as the type of Reeve's species.

162. SCURRA (f. 380), *Marrat.*—*O. versicolori* formâ similis, angusta, lineis tenuibus pallidis reticulata, supra medium fasciâ albâ angustâ cincta, medio et ad marginem baltei minutè lineatim maculata; spirâ obtusiusculâ, anfractibus tumidiusculis, flammulis purpureis distantibus ornatâ; columellæ plicis numerosis et distinctis.—Besides the difference in the marking, the columellar plaits are more numerous than in the preceding species.

163. CUNEATA (f. 383), *Marrat.*—Lanceolato-cuneata, posticè attenuata, anticè expansa, alba, infra suturam lineis minutis pallidis fasciatim dispositis ornata; columellâ validè plicatâ, plicis calli antici duabus obliquis.—Distinguished from others of the same group by the cuneate form. Incor-

rectly figured and described by Reeve as *O. pulchella*, Duclos. Mr. Reeve points out that the row of spots below the suture does not touch it, as in his *O. lanceolata*.

164. LANCEOLATA (f. 384), *Reeve*.—Parva, lanceolata, alba, lineis undulatis pallidis fulvis, ad suturam et supra balteum fortioribus notata; spirâ elongatâ; aperturâ brevi; columellâ arcuatâ, lævigatâ, calli antici plicis quinque crassis.—Possibly a small variety of *O. gracilis*.—ED.

165. TENUIS (f. 385), *Marrat*.—Quam *O. lanceolata* angustior, spirâ magis elongatâ, medio flammulis minutissimis, infra suturam et supra balteum maculis parvis concinnè notata, supra medium albo unifasciata, suturâ pallidâ.—As in Reeve's *lanceolata*, the row of spots under the suture does not touch it. The greater part of the shell is covered, almost reticulated, with very fine flames.

166. ELONGATA (f. 386, 387), *Marrat*.—*O. tenui* formâ simillima, alba, plicis nonnunquam magis numerosis.—Absence of colour and fewer folds distinguish this from the preceding.

167. ORYZA (f. 391), *Lamarck*.—Ovato-subfusiformis, parva, robusta, recta, alba; spirâ elongatâ, conicâ; columellâ anticè plicatâ; labio tenui, anticè subexpanso.—I am not acquainted with a characteristic figure of this species; every series of specimens are so much mixed with other forms as to make me believe that the species has not been understood.

168. NITENS (f. 388, 389), *Dunker*.—Minima, alba, subfusiformis, anticè subexpansa, anfractibus ventricosis; spirâ productâ, anfractibus rotundis, apice obtuso; balteo indistincto; columellâ incrassatâ, arcuatâ, lævi, prope terminum anticum complanato-depressâ.—This interesting small shell was kindly sent me by Mr. Filby, of Hamburg. Its size is very little above that of *O. myriadina*, Duclos, but the characters of the two species will be found to differ widely.

169. ALBA (f. 390), *Marrat*.—Quam *O. oryza* angustior, magis obliqua, alba; spirâ conicâ, anfractibus apicalibus rotundis, plerumque castaneo-tinctis; columellâ arcuatâ, plicis obliquis numerosis.—This species resembles a narrow form of *O. oryza*, but the upper whorls are peculiarly rounded, and the lower ones flat. It is much more transparent than that shell.

170. SELACEA (f. 453), *Duclos.*—Oblongo-fusiformis, solida, pallidè fulva, fasciâ latâ cæruleâ medio cincta, infra suturam aurantio punctata; spirâ conicâ, productâ, anfractibus planulatis; columellâ callosâ, tenuissimè plicatâ, plicis calli antici duabus distinctis; aperturâ intus castaneo latè unifasciatâ.

171. ESTHER (f. 392), *Duclos.*—*O. celaceæ* formâ similis, magis ventricosa, solida, lactea, lineis fulvis tenuibus undulatis infra suturam et supra balteum intensioribus notata; spirâ conicâ, suturâ fusco maculatâ; balteo supra flavido, carinâ castaneâ; columellâ callosâ, posticè lævigatâ, calli antici plicis duabus, antico densè striato; labio tenui. Variat alba.—The figure of the coloured shell is copied from Duclos. *O. columba*, Duclos, is probably a variety of the next species.

172. PETIOLITA (f. 393, 394, 418), *Duclos.*—Quam *O. Esther* angustior, fulva, lineis undulatis subreticulata, supra balteum et ad suturam maculata, infra suturam purpureo unifasciata; balteo anticè castaneo unifasciato.—Of a narrower form and different colour from *O. Esther*; nevertheless, a very closely allied species.

173. TERGINA (f. 395–398), *Duclos.*—*O. parvulæ* formâ similis, fulva, griseo aut fusco aut aurantio, lineis angulatis inter areas parvas albas trigonas variegata, infra suturam et supra balteum angulatim maculata; columellâ valde callosâ, posticè minutè plicatâ, plicis calli antici duabus parvis, posticâ dentiformi; spirâ callosâ, variè tinctâ, frequenter obtusissimâ.—A careful comparison of the present species with *O. Esther* and *O. petiolita* will show how closely they resemble each other.

174. EXIGUA (f. 399–401), *Martini.*—*O. terginæ* similis, magis solida, haud tantum obliqua, fusco-grisescens, lineis pallidis undulatis rufis flammulata et reticulata, infra suturam maculis lineatis rubris aut griseis latè fasciata; balteo lineato et punctato; columellâ anticè rectiusculâ. Var. lactea, griseo nebulata.—This species has a more solid and less oblique appearance than *O. tergina*. It is less variegated and more delicate in colour and markings, and the columella does not present the same tooth-like projection on its margin.

175. PIPERITA (f. 402, 403), *Marrat.*—Quam *O. tergina* gracilior, dorso punctato-lineata.—Like *O. tergina* in form and general character of markings, but, peppered with minute dots forming the lines and angles of the pattern.

176. ZANOETA (f. 404).—*O. terginæ* formâ similis, sed gracilior, castaneo latè trigonata; columellâ rectinsculâ.—Like *O. piperita*, this is more slender than *O. tergina*, and has not the anterior projecting tooth-like fold of that species. The two broad chestnut bands, one above the belt and the other beneath the suture, and the narrow one upon the belt will prevent this from being mistaken for any other species. —ED.

177. GUILDINGII (f. 405), *Reeve.*—Parva, lanceolata, angusta, griseo-fusca, fasciâ pallidâ lineis rubris notata, infra suturam cincta; spirâ elongatâ, acuminatâ; balteo angusto, castaneo tæniato; columellâ medio arcuatâ, margine unidentato, plicis calli antici tribus magnis.—A neat little darkly-coloured species.

178. TUNGUINA (f. 406).—Quam *O. Guildingii* ad spiram magis obtusa; balteo albo.—Is not this a more obtuse form of *O. Guildingii ?*—ED.

179. MANDARINA (f. 407), *Duclos.*—*O. terginæ* formâ similis, pallidè grisea, lineis undulatis numerosis rubro-fuscis notata; spirâ obtusâ, ad suturam punctatâ; balteo flammulato; columellâ tumidâ, medio arcuato subplanulato, tenuiter plicato; plicâ calli antici unâ, ad marginem prominenti; aperturâ intus fuscâ, margine obtuso.—Described and figured from Duclos.

180. MICA (f. 408), *Duclos.*—Breviter ovata, prope aperturam subplanulata, alba vel fulva, flammulis castaneis triseriatim dispositis notata; spirâ brevissimâ, apiculatâ; balteo albo; columellâ posticè distanter plicatâ, medio arcuatâ, anticè plicis tribus obliquè tortuosis terminanti; aperturâ intus albâ, diaphanâ; labio tenui.—The spire is shorter in proportion than in most species of the group, but the shells seem rather undeveloped.—ED.

181. ALECTONA (f. 412), *Duclos.*—Ovato-subfusiformis, ventricosa, pallidè griseo-fulva, lineis angulatim angulatis fuscis

notata; spirâ elongato-conicâ, latiusculâ; balteo angusto, albo; columellâ lævi, calli antici plicis duabus prominentibus; aperturâ intus pallidè fulvâ; labio tenui.—Described and drawn from Duclos.

182. BÆTICA (f. 409, 410), *Carpenter;* petiolita, *Gould.*—Quam *O. alectona* graciliusculior, coloribus magis nebulatis variegata; balteo castaneo, fasciato.—The colours with which most of the specimens are variegated are more clouded, and the lines more spread into patches than in Duclos' figure of *O. alectona*, but the difference seems hardly essential.—ED.

183. PULLA (f. 411), *Marrat.*—Quam *O. bætica* gracilior, tenuior; spirâ magis acuminatâ, calli antici plicis duabus magis obliquis; balteo castaneo, fasciato.—More thin and slender than *O. bætica*, with the anterior folds more oblique and attenuated.—ED.

184. PUELCHANA (f. 461, 462), *D'Orbigny.*—Oblongo-fusiformis, variè picta, plerumque infra suturam maculata; spirâ elongato-conicâ; balteo flammulato; columellâ medio arcuatâ, plicis calli antici tribus obliquis; aperturâ intus pallidè fulvâ; labio tenui, emarginato.—Described and drawn from D'Orbigny's figures.

185. FULGIDA (f. 413, 414), *Reeve.*—Lanceolato-subfusiformis, albida, nitens, fulvo-purpureo lineata et angulatim nebulata, infra suturam et supra balteum rubro fasciatim maculata; spirâ elongato-conicâ; balteo lato, lacteo; columellâ arcuatâ, lævi, plicis anticis duabus; labio tenui.—Like *O. gracilis* in form, but differing in the characters of the columella.—ED.

186. CYANEA (f. 415), *Reeve.*—Ovato-subfusiformis, roseo-plumbea, pallidè rubro punctato-lineata, ad suturam plerumque maculata; spirâ conicâ, apice livido; balteo castaneo unifasciato; columellâ lævigatâ, ad suturam castaneo unimaculatâ, callo antico uniplicato et unimaculato; aperturâ intus fusco ustulatâ; labio tenui, infra columellam producto.

187. STRIGATA (f. 416, 417), *Reeve.*—Subovata, supra medium ventricosa, griseo-fulvescens, lineis rubris elongatis angulatim undulatis notata, infra fasciâ albâ rubro-lineatâ cincta; spirâ breviusculâ, lineatâ; balteo calloso, albo, callo

antico in plicam tortuam terminanti; labio tenui, diaphano. —Like *O. alectona*, Duclos, but having one basal plait on the columella instead of two.

188. INTORTA (f. 455), *Carpenter*.—Figured from a specimen in the British Museum.

189. ANAZONA (f. 419), *Duclos*.—Angusta, obliquè subcylindrica, semipellucida, pallida, strigis undulatis fulvis pallidis quasi-reticulatis infra suturam et supra balteum castaneo-ustulato maculata; spirâ brevi, fusco-ustulatâ; balteo medio castaneo; columellâ subrotundâ, plicis calli antici duabus albis prominentibus; aperturâ anticè dilatatâ; labio tenui, margine maculato.—A very richly coloured semitransparent little shell, with subreticulated markings in the centre.

190. FABULA (f. 420, 421), *Marrat*.—Lanceolato-fusiformis, cinerea, lineis rubris acutis angulatim undulatis infra suturam et supra balteum densè approximatis notata; spirâ elongato-conicâ, acutâ, cæruleo alboque fasciatâ; balteo aureo, nonnunquam dimidiatim candido; columellâ lirâ elevatâ continuâ, angustâ, arcuatâ, marginatâ, plicis terminalibus duabus perobliquis; labio abraso, margine fusco et albo.—The columellar callus is formed into a thickened ridge continued the whole length, a peculiarity which I have not observed in any other species.

191. FORTUNEI (f. 422, 423), *Adams*.—Latè fusiformis, cinerea, ad suturam maculâ fuscâ cincta, medio lineis fuscis undulatis notata; spirâ conicâ, acuminatâ; balteo flavido, fulvo, vel variegato; columellâ rotundâ, subcallosâ, plicis terminalibus tribus obliquis albis; labio tenui, posticè emarginato.

192. NOTA (f. 428), *Marrat*.—Oblongo-lanceolata, obtusa, albido-subrosea, maculis latis angulatim undulatis medio pallidis supra et infra vividis magnis notata; balteo albo; columellâ anticè plicis duabus purpureis obliquis terminanti; labio pellucido, tenui, anticè infra columellam dilatato.—Characterized by very broad markings, and by the two folds of the terminal columellar callus being purple. The specimens somewhat resemble *O. bætica*, with which one of them came.

193. FULGURATA (f. 424, 425), *Ad. et Reeve.*—Elongato-lanceolata, alba, medio fulva, lineis rufo-fuscis undulatis continuis notata; spirâ elongato-acuminatâ, apice livido; balteo albo, anticè tincto; columellâ anticè uniplicatâ; labio tenui, versus medium emarginato.

194. NYMPHA (f. 426), *Ad. et Amzas.*—Attenuato-fusiformis, alba, prope suturam opaca; spirâ elongatâ; columellâ anticè uniplicatâ; aperturâ angustâ; labio anticè dilatato.—The aperture is shorter than in *O. pura*, Reeve.

195. PARDALIS (f. 427).—Angustè fusiformis, pallidè cærulea, punctis quadratis fuscis fasciatim dispositis notata; spirâ elongatâ; balteo pallido; columellâ albâ, callosâ, lævi, anticè uniplicato; labio tenui, sinuato.—Very closely resembling *O. triticea*, Duclos, but the columella appears to be more acuminated at the base.

196. LEUCOZONA (f. 456), *Ad. et Amzas.*—Lanceolato-fusiformis, pallidè fulva, lineis pallidis fulvis reticulata, infra suturam albo-fasciata; balteo castaneo; columellâ lævigatâ, callosâ, fuscatâ, ad terminum uniplicatâ; aperturâ parvâ; labio tenui.

197. PULCHRA (f. 429), *Marrat.*—Ovato-lanceolata, lactea, lineis fuscis longitudinalibus numerosis undulatis et supra balteum maculis subquadratis notata, maculis rubro-fuscis magnis vividis arcuatis infra suturam laqueata; spirâ rotundato-turbinatâ; columellâ arcuatâ, lævi, ad terminum anticum obliquè biplicatâ; labio tenui, anticè dilatato.—Remarkable for the large curved spots which festoon the margin below the suture.

198. PELLUCIDA (f. 430).—*O. pulchræ* simillima, sed ad suturam et supra balteum fasciis rubris densè maculatis cincta.—Mr. Marrat's *O. pulchra* resembles this in most respects, but instead of the closely-spotted band at the suture and above the belt, it has the horseshoe-shaped spots described.

199. PURA (f. 431), *Reeve.*—Oblongo-lanceolata, alba, opaca; spirâ elongatâ; columellâ arcuatâ, lævi, anticè ad terminum biplicatâ; aperturâ parvâ, anticè subangustatâ.—More narrowly lanceolate than *O. tehuelchana*.

200. COMPTA (f. 432), *Marrat.*—Elongato-fusiformis, alba, pellucida, castaneo flammulata et fasciata; spirâ elongatâ, apice nonnunquam livido; balteo albo; columellâ callosâ, anticè obliquè uniplicatâ, infra medium arcuatâ; labio tenui. —Resembling *O. pellucida*, but may be known by the more elongated form, the callous columella, and the single prominent fold at the base.

201. BULLULA (f. 433, 434), *Reeve.*— Subovata, quam *O. pura* magis ventricosa et solida, alba, immaculata, vel flammulis fuscis trifasciatim dispositis variegata; suturâ punctatâ.—This is the West Indian analogue of the South American *O. tehuelchana*, D'Orb. Mr. Reeve had not seen the finely coloured specimens of his shell, which he describes as pure white.

202. TEHUELCHANA (f. 457), *D'Orb.*—Angustè subfusiformis, alba; spirâ elongatâ, acuminatâ; columellâ anticè uniplicatâ. —A pure white fusiform little shell, with one basal columellar plait, and intermediate in form between *O. bullula* and *O. pura*.

203. VOLUTELLOIDES (f. 435), *Marrat.*—Volutæformis, alba, pallidè violacea, infra suturam et supra balteum fasciata; spirâ brevissimâ, acutâ; balteo latiusculo, subelevato; columellâ lævi, rotundâ, anticè ad terminum uniplicato; labio tenui, rotundato, leviter expanso.—Resembling *O. rosalina*, but with a single fold on columella.

204. ROSALINA (f. 436), *Duclos.* — Ovato-fusiformis, alba, lineis distantibus longitudinalibus undulatis fuscis notata; spirâ latè conicâ, anfractibus convexiusculis, balteo albo; columellâ arcuatâ, lævi, plicis calli antici duabus frequenter rosaceis.—This differs from *O. inconspicua*, Ad., and *O. volutelloides* in form. They have all coloured folds occasionally, but none of them always.

205. INCONSPICUA (f. 437), *Adams.* — Alba, pallidissimè purpureo bifasciata, obliquè subcylindracea, ad marginem sinistrum anticè obliquè contracta; spirâ breviusculâ, latâ, anfractibus prominentibus, suturâ latâ, acutimarginatâ; columellâ ad terminum uniplicatâ; labio anticè dilatato.—My shell agrees with the specimens deposited by the describer in the British Museum. Its short spire and ovate form serve to distinguish the species.

206. DIODOCUS (f. 438), *Ad. et Reeve.*—Ovato-fusiformis, semipellucida, pallidissimè fulva, maculis rubro-fuscis arcuatis triseriatim dispositis notata; spirâ convexâ, turbinatâ, apice purpureo; columellâ lævi, callo biplicato ant triplicato acutè terminanti; labio pellucido, anticè subdilatato.

207. TRITICEA (f. 439), *Duclos.* — Elongato-subfusiformis, pallida, maculis magnis quadratis aut trigonis fuscis in seriebus tribus dispositis ornata; spirâ elongatâ, infra suturam maculatâ; columellâ lævi, anticè callosâ, complanatâ, uniplicatâ.—Three rows of large spots characterize this species.

208. MYRIADINA (f. 440), *Duclos.*—Minima, alba, pellucida, elongato-subfusiformis, infra suturam opaca; spirâ conicâ, anfractibus rotundis; balteo lato; columellâ lævi, anticè ad terminum uniplicatâ; labio crasso, acutimarginato. — The length of the spire is very variable.

209. MILLIACEA (f. 441), *Marrat.* — Quam *O. myriadina* magis ventricosa; anfractibus magis rotundatis, suturâ profundiori et latiori; columellâ ad terminum biplicatâ.—Resembles *O. myriadina*, Duclos, but has two distinct folds at the base, the whorls are much rounder, and the suture wider and deeper.

Additional Species.

210. ATALINA (f. 442), *Duclos.*—Ovato-fusiformis, alba, maculis roseo-purpureis pallidis irregulariter dispositis picta; spirâ depresso-conicâ, anfractibus prope suturam depressis; columellâ callosâ, plicis tumidis liratâ, calli antici plicis quinque distinctis, albis.—Although this shell, together with the next, have all the appearance of being varieties of *O. episcopalis* and *O. tricolor*, I have not been able to connect them.

211. QUERSOLINA (f. 443), *Duclos.*—*O. episcopali* simillima, coloribus evanidis.—I can hardly doubt the identity of this shell with *O. episcopalis.*—ED.

212. LUTEA (f. 444, 445), *Marrat.* — Oblongo-cylindracea, fulva, lineis angulatim undulatis pallidis et maculis fuscis in fasciis duabus dispositis notata; spirâ depresso-conicâ; columellâ ferè omnino plicatâ, plicis distantibus haud promi-

nentibus, plicis calli antici quinque magnis, aliis intermediis minoribus; aperturâ intus pallidè violaceâ, prope marginem fuscâ, margine flavido.—The present species is allied to *O. mortina*, *O. cylindrica*, *O. ispidula*, etc., but does not agree with any.

213. PULCHELLA (f. 446), *Duclos*. — Ovato-subfusiformis, ventricosa, fulvo-grisea, lineis undulatis notata, infra suturam griseo lineatim maculata; spirâ conicâ, anfractibus subrotundis; balteo medio carinato; columellâ albâ, posticè obsoletissimè plicatâ; callo antico lato, quadriplicato.

214. LEPTA (f. 447), *Duclos*. — Angustè lanceolata, fusiformis, fulvo-grisea, lineis undulatis elongatis notata; spirâ elongatâ, conicâ, acutâ; balteo fusco, albo marginato; columellâ lævi, plicis anticis duabus perobliquis fuscis.—Described and figured from the work of Duclos.

215. BULLATA (f. 448), *Marrat*.—Oblongo-fusiformis, alba, lineis angulatim angulatis maculatis, et maculis paucis rotundis distantibus ornata, ad marginem suturalem lineis griseis fasciculata; spirâ elongato-conicâ, anfractibus planulatis; balteo tumido, fusco-flammulato; columellâ plicis validis, frequenter duplicatis omnino rugatâ, plicis calli antici quatuor, obliquis, acutè marginatis; aperturâ intus flavidè albâ; labio abraso, obtusè marginato.—Is this anything but *O. venulata*, slightly varied by markings like those in Mr. Marrat's *O. graphica* ?—ED.

216. MICULA (f. 468), *Marrat*.—Oblongo-fusiformis, griseo-albida, ad suturam zonata; spirâ latè conicâ, anfractibus planulatis, subgradatis; columellâ callosâ, rudè plicatâ, plicis calli antici tribus aut quatuor validis et perobliquis; aperturâ intus albâ; labio expanso, crassiusculo, intus lirâ tumidâ incrassato.—Allied to *O. Orbignyi* and *O. biplicata*, but sufficiently distinguished by the characters given. It also resembles some forms of *O. mutica* and *O. myriadina*.

217 (*or* 161A). RUBRA (f. 459, 460), *Marrat*.—Conico-fusiformis, alba vel rosea, infra suturam et supra balteum lineis pallidis paucis ornata; spirâ turbinatâ, anfractibus planulatis, suturâ profundâ; columellâ ferè omnino validè plicatâ, plicis calli antici quatuor aut quinque obliquè tortuosis validis; aperturâ intus albâ; labio ad marginem acutum abraso.—

Found among specimens of *O. parvula*, and at first thought to be a variety of that common species, but the form and characters of the columella were found so to differ that the first opinion could no longer be held.

218 (*or* 162A). PULICARIA (f. 464), *Marrat.*—Elongato-fusiformis, pallidè fulva, infra suturam et supra balteum fasciatim fusco-punctata, inter fascias lineis longitudinalibus pallidis angulatim undatis notata; spirâ conicâ, productâ, apice acuto, anfractibus planulatis; columellâ arcuatâ, densè elongato-plicatâ, plicis calli antici tribus subvalidis; aperturâ intus pallidè roseâ; labio tenuiusculo, anticè subexpanso.—Nearest allied to *O. gracilis*, but the plaits are very much finer, and the close spotting is peculiar; the form is also different.

219 (*or* 171A). PLANA (f. 463), *Marrat.* — Oblongo-ovata, inflata, pellucida, alba, nitens, ad suturam opaca, obsoletissimè fusco punctata; spirâ latè et breviter conicâ, anfractibus subrotundatis, suturâ canaliculatâ; columellâ arcuatâ, callosâ, plicis numerosis striatâ, anticè ad terminum truncatâ; aperturâ intus albâ, labio acuto.—This small shell resembles *O. bullula*, Reeve, in form, but the plaited columella will serve to distinguish it.

220 (*or* 186A). CAPENSIS (f. 469), *Sowerby.*—Elongato-subfusiformis, tenuiuscula, griseo-purpurea, strigis pallidis undulatis longitudinaliter notata, infra suturam albo fasciata, rubro lineatim maculata; spirâ elevatâ, pyramidatâ, apicè purpureo; balteo albo, anticè fasciâ castaneâ latâ cincto; aperturâ breviusculâ; labio arcuato, tenui, anticè subexpanso; columellâ lævigatâ; callo antico parvo, fusco, oblique biplicato.—Perhaps nearest to *O. cyanea*, but more light, thin, and fusiform. The chestnut band on the belt, and the double fold of the anterior callus, are striking characters.

221 (*or* 77A). GRATA (f. 470), *Marrat.*—Elongato-cylindrica, vix conica, flavido-fulva punctis rubro-fuscis longitudinalibus transversisque, cum fasciis duabus litteratis notata; spirâ latè conicâ, anfractibus planulatis, suturâ canaliculatâ; columellâ ferè omnino plicatâ, plicis calli antici tribus aut quatuor intersulcatis; aperturâ intus albâ, labio intus rubro marginato.—Having but a single specimen of this shell, I cannot trace its affinities. (*Mar.*) Does it not resemble *O. Caroliniana*, Duclos?—ED.

222 (*or* 95A). FULVA (f. 471), *Marrat.*—Oblongo-cylindrica, subventricosa, posticè rotundata, pallidè fulva, punctis pallidè rubris et fasciis duabus indistinctis notata; spirâ depresso-conicâ, anfractibus planulatis, suturâ canaliculatâ, margine punctato; columellâ tumidâ, obsoletè plicatâ, plicis calli antici quatuor validis; aperturâ intus pallidissimè roseâ; labio abraso, margine acuto.—This species is allied to a difficult series of Olives, viz. *O. atalina*, *O. quersolina*, etc. They may all prove varieties of a common type when the variations are better understood.

223. MASARIS (f. 475), *Duclos.*—The figure is copied from the above author's work on Olives. Some shells sent to Mr. Marrat as representing the species, from the Moluccas, were specimens of *O. porphyritica*, the animals of which were sickly when living. Duclos' shell has numerous plaits on the columella, and five or six long oblique folds.

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A MONOGRAPH OF THE GENUS

MITRA.

Char. Gen. Testa marina, spiralis, solida, turrita, anticè canalifera, canali extus tumulum spiralem efformanti; labio externo plus minusve incrassato, anticè ad canalem emarginato; labio interno super anfractum ultimum continuo; columellâ plicatâ; plicis tribus ad sex obliquis.

Shell marine, spiral, solid, turreted, with a canal in front, the canal forming outwardly a spiral tumulus; outer lip more or less thickened, anteriorly notched at the canal; inner lip continued on the last whorl; columella plaited, plaits three to six, obliqne.

The sections into which the following species are divided, although not definable, may serve to bring together those most nearly resembling each other.—Species already known are not described in this monograph, and are only remarked upon when necessary to point out such characters and differences as may assist in distinguishing them. New species are described.

Generally, where the convexity of outline is gradually reduced from end to end, as in *M. episcopalis*, the term "mitre-shaped" is used; where it is more central, as in "*vulpecula*" group, the term "fusiform." If it is towards the base, we say it is "pyramidal;" and if towards the spire, "conical."

Species.

(The number of the species precedes the name; that of the figure follows it.)

Sect. I. *Mitre-shaped, with spiral grooves, generally punctured. Outer lip crenulated.*

1. EPISCOPALIS (f. 3), *Linnæus*.—Whorls plain.

2. PAPALIS (f. 6, 7), *Lamarck*.—Whorls coronated, close to suture.

3. PONTIFICALIS (f. 1, 2), *Lamarck*.—Whorls coronated on an angle.

4. PUNCTICULATA (f. 8, 9), *Lamarck*.—Coronated as 3, markings in bands.

5. SERPENTINA (f. 72, 73), *Reeve*.—Whorls plain.

6. MARQUESANA (f. 575), *Adams*.—*M. Serpentinæ* similis, sculpturâ tenuiorâ.—This little shell has the appearance of the preceding in miniature, with finer sculpture.

7. CÆRULEA (f. 231, 232), *Reeve*.—Resembles 8, but the whorls are plain.

8. BOVEI (f. 60), *Kiener*.—With a coronated angle at the whorls.

9. LACUNOSA (f. 171), *Reeve*.—The downward grooves are probably accidental in the original shell.

10. MAURITIANA (f. 610), *Sowerby*—Testa cylindrica, sulcis foveolatis spiralibus et liris longitudinalibus validè cancellata, anfractibus latis, supernè subgibbosis, albis, infrà fasciis latis fuscis interruptis cinctis, aperturâ ad marginem leviter crenulata.—This shell resembles Reeve's *M. lacunosa*, but it is regularly cancellated by pitted grooves and ridges; the form is cylindrical, with shouldered, straight-sided whorls.

11. NYMPHA (f. 189), *Reeve*.—The specimen marked with this name in the late M. Cuming's collection is a much worn

M. puncticulata. The sculpture as well as the clouded colouring is delicate and fine in *M. nympha*. Sir David Barclay's collection contains a beautiful specimen.

12. EXIMIA (f. 266), *A. Adams*.

13. VARIEGATA (f. 162, 3), *Reeve*.

14. INCISA (f. 292, 3), *Ad. and Rve.*—M. Mariæ, *A. Ad.*, is a slightly ventricose variety.

15. CARDINALIS (f. 32), *Gronovius*.—With small, brick-shaped spots.

16. LAMARCKII (f. 58), *Deshayes*.—A smaller shell, with larger spots than *C. cardinalis*.

17. NEBULOSA (f. 39), *Swainson*.

18. VERSICOLOR (f. 44, 45), *Martyn*.—Not so cloudy in its markings, and having little chestnut touches edged with white.

19. SANGUINOLENTA (f. 160), *Lamarck*.—Considered doubtful as figured by *Kiener* and here copied.

20. HANETTI (f. 624), *Petit*.

21. ROSSIÆ (f. 113), *Reeve*.

22. PROPINQUA (f. 59), *A. Adams*.

23. BELCHERI (f. 80), *Hinds*.—With deep grooves, not punctured.

Sect. II. *Mitre-shaped, passing to pyramidal, seldom grooved or punctured, outer lip not crenulated.*

24. FERGUSONI (f. 70, 71), *Sowerby*.—Testa ventricosa, lævigata, solida, pallidè fulva, lineis articulatis nebulisque castaneis ornata; spirâ breviùsculâ, obtusâ; columellâ quinqueplicatâ; aperturâ magnâ; labio externo lævigato.—More volute-shaped than any other species, it is smooth, solid, pale fawn, with fine articulated lines and a little cloud of chestnut; spire rather short, obtuse; aperture large, with smooth outer lip.

25. ZONATA (f. 62), *Maryatt.*

26. CASTA (f. 46), *Solander.*

27. FILUM (f. 305), *Wood.*—More olive-shaped than *M. casta*, with the broad band of colour placed below the suture and intersected by thread-like white lines.

28. FISSURATA (f. 85, 89, 90).

29. ZEPHYRINA (f. 306, 307, 308), *Duclos.*—Var. f. 306 is *M. Nevillei* of Hanley.

30. OLIVÆFORMIS (f. 318), *Swainson.*

31. LIMATA (f. 57), *Reeve.*

32. HAMILLEI (f. 625), *Petit.*—Remarkable for its compressed sides and close-set ribs.

33. ALBOFASCIATA (f. 300), *Sowerby.*—Testa subcylindrica, longitudinaliter rugata, fusco-nigricanti, anfractibus supernè gibbosis, fasciâ albâ, latâ cinctis; spirâ aperturam longitudine æquanti; columellâ medio triplicata.—This rough South African shell is placed in this section because of its cylindrical form; it is darkly coloured and longitudinally wrinkled, with a white band at the suture of the whorls where they are a little shouldered.

34. SENEGALENSIS (f. 345, 347), *Reeve.*

35. FULGURITA (f. 63), *Reeve.*

36. FLOCCATA (f. 186), *Reeve.*—The fleecy white markings cloudy and undefined.

37. GUTTATA (f. 166), *Swainson.*—More ovate than *M. floccata*, with tear-shaped white markings edged with curved lines.

38. DESETANGSII (f. 183), *Kiener.*

39. CHALYBÆA (f. 67), *Reeve.*

40. VARIABILIS (f. 184, 185. 188), *Reeve.*—The variety named *M. cylindrica* (188) by M. Reeve, only represents an extreme in form and striation of this variable species.

41. RUBIGINOSA (f. 167), *Reeve.*

42. INQUINATA (f. 168), *Reeve.*

43. LATRUNCULARIA (f. 237, 8), *Reeve.*

44. PICTA (f. 242, 3), *Reeve.*

45. CALIGINOSA (f. 75), *Reeve.*

46. SWAINSONI (f. 88), *Broderip.*

47. SOLIDA (f. 164, 5), *Reeve.*

48. SACERDOTALIS (f. 79), *Adams.*

49. CHINENSIS (f. 81), *Gray.*

50. PIGRA (f. 177, 325), *A. Adams.*

51. STRIGATA (f. 330), *Swainson.*

52. ROSETTÆ (f. 339), *Angas.*—The whorls are sloped and not rounded, as in *M. strigata.*

53. ORIENTALIS (f. 40), *Gray.*

54. ABBREVIATA (f. 328), *Sowerby.*—*M. orientali* simili, sed brevi, rotundata.—The true *nigra* of Quoy is an unknown shell. Its characters cannot be made out well from the original figures. It is certainly not this species, which resembles a much shortened specimen of *orientalis.*

55. FUSCA (f. 301), *Reeve.*

56. PLUMBEA (f. 527), *Lamarck.*—Less elevated than *M. fusca,* with a bluish bloom over the darker colour.

57. CASTANEA (f. 205), *A. Adams.*

58. BARBADENSIS (f. 204), *Gray ?*—Brit. Mus.

59. CALLOSA (f. 105), *Reeve.*

60. SIMPLEX (f. 528), *Sowerby.*—Testa brevi, solida, ventricosa, castanea, subfusiformis ; anfractibus brevibus, convexis, ultimo ad medium ventricosa, infrà contracto, spiraliter sul-

cato ; labio externo flexuoso.—Short, solid, ventricose, chestnut, whorls rounded, the last ventricose in the middle, contracted below, with two or three spiral grooves. Mr. Hanley has half-a-dozen specimens of this interesting little shell.

61. NITIDA (f. 637), *A. Adams.*—A small shining brown shell resembling the last, but not ventricose.

62. CORNICULA (f. 523), *Linnæus.*—Mr. Hanley (Ips. Linn. Conch.) thinks that the true *cornicula* of Linn. was a var. of *ebenus.* As Mr. Reeve, however, adopts the identification by *Deshayes,* I follow his example.

63. GRAJA (f. 525), *Reeve.*—Resembling *cornicula,* but different in form, aperture more open at the base.

64. TYPHA (f. 323), *Reeve.*

65. MICANS (f. 588), *Reeve.*

66. TENUIS (f. 327), *Sowerby.*—Testa parva, semipellucida, cornea, pyramidata, fasciâ pallidè fulvâ supernè cinctâ, spirâ acuminatâ, aperturam longitudine æquanti ; aperturâ anticè effusâ.—Much like *M. typha,* but more pyramidal. Transparent, horny, very pyramidal, with a light fulvous band on the upper part of the whorls.

67. AUSTRALIS (182), *Swainson.*—Turreted, with dark brown bands and cinnamon-spotted white bands.

68. NIGRA (f. 4), *Chemnitz* as per *Reeve,* not *Quoy.*—See sp. 54.

69. POLITA (f. 98), *Reeve.*

70. DIGNA (f. 145), *A. Adams.*—More attenuated and acuminated than *M. Nigra.* Whorls white, bordered with spots.

71. SCHRŒTERI (f. 529), *Deshayes.*—The name is applied to a shell figured by *Schrœter,* and quoted by Lamarck as one example of *cornicula.*

72. BULIMOIDES (f. 180), *Reeve.*

73. RHODIA (f. 213, 302).—A dark, slim species, with an acuminated spire slightly exceeding the mouth in length.

74. TESTACEA (f. 103), *Swainson.*—More solid and pyramidal than *M. rhodia*, with spire longer and mouth more open at base.

75. BADIA (181), *Reeve.*—Scarcely a satisfactory species, but more stout and broad than *M. rhodia.*

76. LACTEA (f. 102), *Lamarck.*

77. INSOLATA (f. 650), *Sowerby.*—Quam *M. lactea* magis pyramidata, anfractibus ad suturam haud gibbosis.—The whorls are not gibbous at the suture, as in *M. lactea.*

78. COOKII (f. 228), *Hanley.*—A shell of pyramidal form, delicately striated.

79. STRIATULA (f. 97*, 374), *Lamarck.*

80. EFFUSA (f. 104), *Swainson.*—This shell has been mixed up with *M. striatula*, but it is much more compressed at the sides, and the striæ are of a different character.

81. GLABRA (f. 54), *Swainson.*

82. DECLIVIS (f. 233, 272), *Reeve.*

83. CANCELLATA (f. 69, 172), *Swainson.*—In the first variety figured, the cross intercostal striæ are very slightly shewn.

Sect. III. *Pyramidal or mitre-shaped, granulated or scabrous.*

84. TESSELLATA (f. 97), *Martyn.*

85. TEREBRALIS (f. 94), *Lamarck.*—Although the differences between these two species as to granulation and straightsidedness are fairly represented in the two specimens figured, those differences are rather graduated in others. Still we think the species distinct.

86. GRANULOSA (f. 90*), *Lamarck.*

87. IMPRESSA (f. 106, 234), *Anton.*

88. LENS (f. 28), *Wood,*

89. LIGNARIA (f. 174), *Reeve.*

90. MURICATA (f. 558), *Swainson.*

91. RUPICOLA (f. 169), *Reeve.*

92. VULTUOSA (f. 557), *Reeve.*—Not so obtuse or thick as *M. muricata.*

93. NUCLEOLA (f. 397), *Lamarck.*

94. SPHÆRULATA (f. 38), *Martyn.*—Sculptured with thick beaded ridges.

95. CRENIFERA (f. 29, 30, 31), *Lamarck.*—Texture much closer and finer than *M. sphærulata.*

96. SCABRIUSCULA (f. 33, 34, 35), *Linnæus.*—Sculptured with thin beaded ridges.

97. GRACILIS (f. 187), *Reeve.*—Shell narrow, ridges spotted.

98. PRETIOSA (f. 236), *Reeve.*—Finely spotted and beaded.

99. ANTONII (f. 245), *A. Adams.*

100. PURA (566), *A. Adams.*—White, with beaded sculpture.

101. STRANGEI (f. 289), *Angus.*—A very delicately sculptured white shell.

102. ISABELLA (f. 55), *Swainson.*

103. PIA (f .550), *Dorhn.*—Sculptured with sharp and distant beaded ridges.

104. MORCHII (f. 78), *Dorhn.*—The shell is less graceful and more cylindrical than *M. isabella ;* with a flattened and duplicate character in the ridges.

105. LORICATA (f. 147, 148), *Reeve.*—Granulated in squares.

106. PEASEI (f. 76), *Dorhn.*—White, with raised striæ.

107. ÆGRA (f. 112), *Reeve.*

108. NORRISII (f. 68), *Reeve.*—Ventricose and puncture-striated.

109. NIVEA (f. 77), *Swainson.*—More graceful and pyramidal in form than *M. Norrisii.*

110. FILOSA (f. 82, 83), *Born.*—Set with circlets of brown beads.

111. CIRCULATA (f. 86, 87), *Kiener.*—Raised sharp ridges, with longitudinal inter-costal indentations.

112. INTERLIRATA (f. 369), *Reeve.*—With interstitial spiral ribs.

113. NOVÆHOLLANDIÆ (f. 368, 417), *Sowerby.*—Testa subfusiformis, solida, pallidè fulva, flammeis castaneis triserialibus picta, anfractibus supernè subangulatis, liris spiralibus tenuibus, distantibus, et sulcis longitudinalibus, interstitialibus sculptis.—Shell solid, rather fusiform, pale fulvous, painted with chestnut flames in three rows; whorls rather angular above, sculptured with distant, spiral, thin ridges, and longitudinal interstitial grooves.

114. FOVEOLATA (f. 370, 371), *Hanley.*—The ridges are thick, and beaded as in *M. sphærulata*, and the interstitial cross-grooves are as in *M. Novæhollandiæ.*

115. FORMOSA (f. 235), *A. Adams.*—Granulated in close squares, with tessellated markings.

116. FLAMMIGERA (f. 107, 108), *Reeve.*

117. INCARNATA (f. 551), *Reeve.*

118. CARNICOLOR (f. 549), *Reeve.*

119. ROSACEA (f. 111), *Reeve.*

120. FLAMMEA (f. 173), *Quoy.*—The shell of the "Astrolabe" has distinct ridges, like the specimen figured here; while *M. fulgetrix* of *Reeve*, marked in the same manner, has only grooves. *Reeve's* representation of the species is only that of a variety of *M. annulata.*

121. RUFILIRATA (f. 572), *Adams et Reeve.*

122. CREBRILIRATA (f. 626), *Sowerby.*—Testa fusiformis, tenuiter et creberrimè liris moniliformibus fuscis cincta.—This little shell resembles *M. filosa*, but is narrower, and has more numerous and finely beaded ridges.

123. TORNATA (f. 553), *Reeve.*—With numerous angular ridges.

124. Fischeri (f. 573), *Souverbie*.—With few, deep, angular ridges.

125. cytharoidea (f. 567), *A. Adams*.

126. annulata (f. 91, 92, 93), *Reeve*.—Var. 93 is erroneously given by *Reeve* for *M. flammea*, *Quoy*.

127. amæna (f. 244), *A. Adams*.—The ridges are finely articulated with brown spots.

128. lineata (f. 554), *Reeve*.—The angle of the ridges is painted with a red line.

129. acutilirata (f. 273, 4), *Sowerby*.—Testa subovata, pallidè rosea, liris angulatis, super angulos interruptim lineis rubro-fuscis pictis cincta; inter liras longitudinaliter striata.—Shell subovate, pale rose, encircled with angular ridges, painted on the angles with interrupted red-brown lines, longitudinally striated between the ridges.

130. Hystrix (f. 570), *Montrouzier*.—The angular ridges crenulated or beaded.

131. insculpta (f. 568), *A. Adams*.

132. semiconica (f. 619), *Sowerby*.—Testa solida, subconica, flammeis fusco-subviridis interruptis longitudinalibus picta, liris rotundato-angulatis sculpta.—This shell resembles *M. annulata*, but the ridges, instead of being sharply angular, are rounded at the edges.

133. cyri (f. 576), *Dorhn*.—With neat square spots in the intervals of the grooves.

134. Boissacci (f. 574), *Montrouzier*.—Quite possibly the same as *M. Cyri*, but the spots are larger, and the shell narrower.

135. fulgetrum (f. 179), *Reeve*.—Not ridged, like *M. flammea*, but grooved.

136. Hebes (f. 230), *Reeve*.

137. avenacea (f. 560), *Reeve*.—A smaller shell than 136, but more largely wrinkled at the top of the whorls.

138. PRUINOSA (f. 565), *Reeve.*

139. STRAMINEA (f. 561), *A. Adams.*

140. GIGANTEA (f. 95, 96, and var. HINDSII 195, 196), *Reeve.* —An examination of many specimens has led me to the conclusion that *Reeve's* second species is but a younger and therefore more sharply angular form of this species.

141. ATTENUATA (f. 194), *Reeve.*—The whorls have more compressed sides than in *M. gigantea.*

142. CARINATA (f. 246, 247, 401), *Swainson.*—The smaller and younger specimens have the sharper angle and keel at the top of the whorls.

143. TELESCOPIUM (f. 304), *Reeve.*

144. PECULIARIS (f. 322), *Reeve.*

145. GAMBIANA (f. 579), *A. Adams.*

146. MULTILIRATA (f. 556), *A. Adams.*

147. MÆSTA (f. 595), *Reeve.*

148. DUPLILIRATA (f. 555), *Reeve.*

149. ROBOREA (f. 298), *Reeve.*

150. SULCATA (287, *Swainson.* — Including FUNICULATA, *Reeve,* 286).

Sect. IV.—*Short, spirally ridged, aperture contracted, outer lip crenulated.*

151. RUBIGINEA (f. 257, 258), *A. Adams.*

152. PROCISSA (f. 264, 282), *Reeve.*—Not, like *M. rubiginea,* deeply sculptured between the ridges; angular at the top of the whorls.

153. CLARA (f. 652), *Sowerby.* — Testa oblonga, flammis fusco-rubescentibus, medio anfractuum interruptis picta; liris distinctis, subdistantibus, rotundis et striis intermediis sculptâ; anfractibus supernè angulatis, ad latera compressès.

—Shell oblong, painted with red-brown flames, interrupted in the middle, sculptured with distinct, rather distant, rounded ridges, and intermediate striæ; whorls angular above, compressed at the sides.

154. ROTUNDILIRATA (f. 263, 278), *Reeve*.—Differing from *M. procissa* in shortness of whorls and roundness of ridges.

155. MALETTI (f. 569), *Petit*.—With few, deep, angular, cross-sculptured ridges.

156. TURGIDA (f. 458), *Reeve*.—Deeply ridged.

157. CALEDONICA (f. 459), *Petit*.—Rather grooved than ridged.

158. CANDIDA (f. 288, 562), *Reeve*.—White, with rounded ridges.

159. CRENATA (f. 563), *Swainson*.

160. ERICEA (f. 487), *Pease*.

161. SEMIFERRUGINEA (f. 504), *Jonas*, (*Reeve* 222.)

162. LIENARDI (f. 239), *Sowerby*.—Much narrower than *M. semiferruginea*.

163. CUCUMERINA (f. 275, 276, 277), *Lamarck*.

164. RUBRITINCTA (f. 295), *Reeve*.—A more acuminated shell than *M. cucumerina*.

165. PORCATA (517), *Humphrey*.

166. TABANULA (f. 280, 281), *Lamarck*.

167. MINOR (f. 662), *Sowerby*.—Testa parva, fusca, fusiformi, rugis numerosis rotundalis spiralibus cinctâ; spirâ aperturam longitudine æquanti; plicis columellaribus parvis. —Shell small, brown, fusiform, girt with numerous rounded spiral ridges; spire equal to aperture in length, columellar plaits few.

168. HANLEYI (f. 661), *Sowerby*.—Testa parva, alba, elongata, subcylindrica, rugis spiralibus paucis cinctâ; aperturâ spiram longitudine superanti; spirâ obtusâ.—Shell small, white, elongated, subcylindrical, girt with few spiral ridges; aperture rather larger than spire; spire obtuse.

169. SPADICEA (f. 478), *Dunker.*—Resembling *M. minor*, but with more sharply cut ridges.

170. FRAGA (f. 284), *Quoy.*—A neat little red shell with spiral ribs, having well-marked little white spots.

171. SUBROSTRATA (f. 297), *Sowerby.*—Testa tenuiuscula fulva, spiraliter tenuiter costata, ultimo anfractu ventricoso, supernè subcrenato; aperturâ anticè subrostrato.—Shell rather thin, fulvous, spirally finely ribbed; last whorl ventricose, a little wrinkled above; aperture anteriorly narrowed almost into a beak.

172. PUDICA (f. 296), *Pease.*—A curious little bulla-shaped shell.

173. INDENTATA (f. 412), *Sowerby.*—Testa albida, spiraliter pauci-costata; aperturâ angustâ, spiram longitudine æquanti, labio externo medio subcontracto, validè crenulato, anticè subacuminato.—Shell whitish, spirally few-ridged, aperture narrow, longer than spire; outer lip contracted in the middle, strongly crenulated, rather acuminated anteriorly. A curious little shell in Mr. Taylor's collection.

174. TEXTURATA (f. 84), *Lamarck.*

Sect. V. *Acorn-shaped, variously sculptured, or plain.*

175. NUCEA (f. 360), *Gronovius.*

176. SOPHIÆ (f. 546), *Crosse.*

177. CRATITIA (f. 545), *A. Adams.*—Resembling *M. Sophiæ*, but with the cancellation more distinct, and the whorls more drawn out.

178. ALBINA (f. 547), *A. Adams.*

179. CRENULATA (f. 354, 355), *Chemnitz.*

180. SINENSIS (f. 349), *Reeve.*

181. LIMA (f. 353), *Sowerby.*—Testa quam *M. sinensis* magis cylindricâ, granulis magis numerosis.—Rather more cylindrical than *M. sinensis*, with the granulations more numerous.

182. GLANS (f. 351, 352), *Reeve.*

182*. FENESTRATA (f. 363), *Lamarck.*

183. RADULA (f. 358, 359), *Sowerby.*—Testa subovata, granulis parvis quadratis divisâ; strigis subviridis pictâ.—Shell subovate, divided into small square granules by spiral and longitudinal lines. This shell is to *M. fenestrata* what *M. lima* is to *M. sinensis.*

184. UNDULOSA (f. 362), *Reeve.*

185. PUNCTATA (f. 161), *Swainson.*—The species is not known in collections. The figure (copied) represents a glandiform smooth shell with equidistant punctured grooves.

186. POTENSIS (f. 603), *Montrouzier.*—The figure in the Journal gives a more conical form with longer mouth and shorter spire than species 185. No distinct punctured grooves.

187. NUX (f. 348), *Sowerby.*—A short dark shell of the glandular form, in the late Mr. Taylor's collection.

188. ARCTATA (f. 316, 317), *Sowerby.*—Testa angusta, cylindrica, tenuiter spiraliter striata, flammis flavidis pallidè in seriebus duabus picta, aperturâ elongatâ, rectâ, angustâ; spirâ brevi, obtusâ.—Shell narrow, cylindrical, finely spirally striated, painted with yellow flames in two rows; spire short, obtuse; aperture elongated, straight, narrow.

Sect. VI. *Conical.*

189. PHILIPPINARUM (f. 580), *A. Adams.*—Spirally grooved and longitudinally striped with greenish or bluish grey.

190. STRIGILLATA (f. 248, 9), *Sowerby.* — This rather conical little shell resembles *M. Philippinarum,* but the spire is much more produced.

191. BACILLUM (f. 312), *Lamarck.*

192. ASTYAGIS (f. 367), *A. Adams.*—Not spirally grooved as in *M. Philippinarum.*

193. CONICA (f. 364, 365), *Schumacher.*—Type species of the genus *Conohœlix,* Sw.

194. CONUS (f. 361), *Chemnitz.*

195. OBESA (f. 350), *Reeve.*

196. DACTYLUS (f. 346), *Linnæus.*

197. VIRGO (f. 313), *Swainson.*—Bulbous at the spiral end.

198. OSSEA (f. 366), *Reeve.*—The tops of the whorls are rounded and the shell is contracted in the middle.

199. VANIKOROENSIS (f. 344), *Quoy.*

200. CARBONACEA (f. 356), *Hinds.*

201. CITRINA (f. 357), *Reeve.*

202. ROLLANDI (f. 604), *Bernardi.*

203. TRUNCATA (f. 315), *Kiener.*

Sect. VII. *Short, with teeth on the inner margin of the outer lip.*

204. ZIERVOGLIANA (f. 326), *Chemnitz.*

205. ROBUSTA (f. 341, 2, 3), *Reeve.*

206. WALDEMARII (f. 332, 3), *Kiener.*—The upper whorls in both varieties (Reeve's *M. solidula* and this) are crenulated, but, in the former, the last whorl becomes smooth. This varies in individuals so that the species pass from one into the other.

207. ÆTHIOPS (f. 331), *Reeve.*—A longer and narrower shell than *M. Waldemarii* (f. 332, 333) with the aperture short in proportion to the spire. Subsequently named *M. crenilabris* by A. Adams.

209. CHOAVA (f. 340), *Reeve.*—Stouter and shorter than the rest of the group.

210. ANTHRACINA (f. 337), *Reeve.*—Smooth, lengthened and somewhat pyramidal.

211. PEDICULUS (f. 338), *Lamarck.*—With strong spiral furrows.

212. ALBOMACULATA (f. 449), *A. Adams?* — MS., Brit. Mus.

Sect. VIII. *Narrow, cancellated or granular, with aperture contracted and outer lip crenulated.*

213. FOVEATA (f. 408), *Sowerby.* — Testa subcylindrica, parva, cancellata, spirâ aperturam longitudine æquanti, obtusâ; aperturâ prope suturam sinuatâ, medio contractâ; anticè subacuminatâ.—Shell small, subcylindrical, cancellated; spire equal to aperture in length, obtuse; aperture with a sinus near the suture, contracted in the middle, a little acuminated anteriorly.

214. ROSEATA (f. 664), ——? MS., Brit. Mus.—A little fusiform pink shell, broadly cancellated, with the aperture sinuously contracted.

215. SOLITARIA (f. 665), *A. Adams.*—The width and length of the upper whorls give this shell a cylindrical appearance. The aperture has a distinct canal near the suture.

216. EXILIS (f. 672), *Reeve.*

217. TODILLA (f. 673), *Michaud?* MS.—A more obtuse, cylindrical shell than *M. exilis*. It is cancellated, dull purple, with brown bands; *M. exilis* is more fusiform.

218. RECURVA (f. 666), *Reeve.*—Rather more broadly fusiform than other species of the group, with the canal turned backwards.

219. GRATIOSA (f. 667), *Reeve.*

220. MIRIFICA (f. 668), *Reeve.*—A slender, gracefully curved shell, with the aperture sinuously contracted above.

221. MILIUM (f. 669), *Reeve.*

222. CERNICA (f. 670), *Sowerby.*—Testa roseo-aurantia angustè subfusiformi, subtenuiter cancellatâ; spirâ aperturam longitudine æquanti; anfractibus ad suturam angulatis, lateribus rectis, ultimo anfractu anticè attenuato, recurvo;

aperturâ contractâ, prope suturam canalifera; labio externo intùs dentato; dentibus superioribus elongatis.—Shell rosy-orange, rather fusiform.

223. ANGUSTATA (f. 671), *Sowerby*.—Testa quam *C. cernica*, magis angustatâ, anticè magis recurva, aperturâ contractâ, lineari.—Very much like *C. cernica*, but much narrower, more recurved anteriorly; mouth much contracted and linear.

Sect. IX. *Outer lip peculiarly shortened and recurved over the canal. The section is suggested by the* M. DIBAPHIFORMIS, *which has been, perhaps without sufficient reason, separated generically under the name "*MAURITIA." *In this and other species of the section, the lower part of the shortened outer lip resembles that of a* TEREBELLUM.

224. DIBAPHIFORMIS (f. 309, 310), *Sowerby*.—See note on Sect. IX. The name, *Barclayana*, has been previously used by Mr. Hanley for species 232 in this section.

225. ANCILLIDES (f. 100), *Swainson*.

226. BELLULA (f. 593), *A. Adams*.

227. TELUM (f. 613, 614), *Sowerby*.—Testa acuminata, angustata, lævigata, flavidè fusca, ad latera validè compressa, spira longitudine aperturam æquanti; aperturâ angustâ, labio externo sinuatim contracto, obliquè subtruncato.—Acuminated, narrow, smooth, yellow-brown, much compressed at the sides; spire as long as aperture; aperture narrow, outer lip sinuously contracted, obliquely subtruncated.

229. IGNOBILIS (f. 110), *Reeve*.

230. USTULATA (f. 227), *Reeve*.—Like M. Abbatis, but very narrow and smooth.

231. ABBATIS (f. 226), *Chemnitz*.

232. BARCLAYI (f. 225, 612), *Hanley*.—More cylindrical than *M. infecta*.

233. INFECTA (f. 607), *Reeve*.—Erroneously represented

in Reeve as a smooth shell. Last whorl shorter than in *Barclayi*.

234. PETROSA (f. 314), *Sowerby*.—Testa crassa, alba, spiraliter striata, fusiformi; spirâ pyramidata, anfractibus declivibus, ultimo anfractu medio subventricoso; aperturâ spiram longitudine æquanti, ad suturam canaliculato; labio externo lævigato, crasso, anticè contracto, subangulato, brevi.—Shell thick, white; spire striated, fusiform; spire pyramidal, whorls sloped, last whorl tumid in middle, aperture as long as spire, channelled at the suture; outer lip smooth, thick, contracted anteriorly, rather angular, short.

Sect. X. *Columbelliform, with outer lip compressed; crenulated or smooth.*

235. ACUMINATA (f. 88*, 89*), *Swainson*.

236. COARCTATA (f. 99), *Swainson*.

237. FASTIGIUM (f. 435), *Reeve*.

238. FUSCESCENS (f. 303), *Pease*.

239. BRUNNEA (f. 441).—MS., Brit. Mus.

240. AURICULOIDES (f. 439, 440), *Reeve*.—*M. fastigium* may possibly be a variety of this.

241. COLUMBELLIFORMIS (f. 255, 256), *Kiener*.—Shaped like a columella, with the upper part of the outer lip compressed and thickened.

242. DECURTATA (f. 460), *Reeve*.—More angular and gibbous on the upper part of the whorls, with shorter spire.

243. SCUTULATA (f. 430, 1, 2), *Chemnitz*.—The shells named "M. amphorella," *Lamarck*, are but varieties of this.

244. OLEACEA (f. 101), *Reeve*.

245. MACULOSA (f. 442, 3), *Reeve*.

246. LITTERATA (f. 436), *Lamarck*.—With dark letter-like markings on a light ground.

247. RETUSA (f. 447, 8), *Lamarck.*—Including *M. virgata* of Reeve, which must surely be the same.

248. CHRYSALIS (f. 437), *Reeve.*

249. COLUMBELLARIA (f. 660), *A. Adams.*

250. PAUPERCULA (428, 9), *Linnæus.*

251. ZEBRA (f. 444, 5), *Lamarck.*—Much shorter and more columbella-like than *M. paupercula.*

252. TIGRINA (f. 438), *A. Adams.*—A much more cylindrical shell than *M. paupercula.*

253. LUCTUOSA (f. 229, 406), *A. Adams.*—A small shell with whitish line on the upper part of the whorls. The spire is more pyramidal than others of the "coronata" group.

254. MARGINATA (f. 311), *Sowerby.*—Testa mitræformis, polita, spiraliter sulcata, spirâ aperturam longitudine æquanti, anfractibus ad marginem fasciâ albâ fusco maculatâ marginatis, aperturâ supernè subcontractâ, labio externo, infrà-crenulato.—Shell, mitre-shaped, polished, spirally grooved, spire as long as the aperture, the whorls bordered with a brown-spotted white band; aperture contracted above, outer lip crenulated below.

255. PLEBEJA (f. 605), *Dorlin.*—A more slender shell than *M. marginata.*

256. CONSOLIDATA (f. 271), *Sowerby.*—A very stout polished shell, much thicker and broader than *M. marginata*, and without the border.

257. RUTILA (f. 221), *A. Adams.*—A beautiful orange-coloured shell with a white, small spotted band on the upper part of the whorls.

258. FERRUGINEA (f. 15), *Lamarck.*

259. ADUSTA (f. 16, 17), *Lamarck.*

260. AMBIGUA (f. 5, 170), *Swainson.*

261. FULVA (f. 241, 615), *Swainson.*—*M. attenuata* is only a shortened variety of this.

262. FULVESCENS (f. 452), *Swainson.*

263. CHRYSOSTOMA (f. 95*, 96*), *Swainson.*

264. DIGITALIS (f. 207), *Chemnitz.*

265. CORONATA (f. 217–220), *Chemnitz.*—We give the principal varieties of this well-known species, but think that the narrow form, with dark border markings between the aculeations of the whorls may fairly be distinguished as sp. 266.

266. TIARELLA (f. 56, 215), *Swainson.*

267. FLORIDULA (f. 283, 611), *Sowerby.*—*M. coronatæ* simili, sed costis latis, spiralibus, et sulcis profundè puncturatis.—Resembling *M. coronata,* but with broad spiral ribs and deeply punctured grooves.

268. AURORA (f. 223), *A. Adams.*—More fusiform and acuminated than *M. coronata,* almost smooth in the middle of the whorls.

269. LUGUBRIS (f. 199, 200, 201), *Swainson.*—Only the dark variety is figured in *Reeve,* but the orange variety, although rather more closely sculptured, can hardly be separated.

270. CORIACEA (f. 564), *Reeve.*

271. UZZIELANA (f. 455), *Crosse.*—May possibly be a variety of *M. lugubris,* although much more finely grained.

272. AURANTIA (f. 250, 251, 260), *Gmelin.*—Specimens vary in the number and thickness of the ridges.

273. LIMBIFERA (f. 261, 262), *Lamarck.*—Smoother, and much more finely ridged than *M. aurantia.*

274. MICHELINI (f. 259), *Petit.*—With broad flat ribs between the grooves. The upper half of the shell whitish.

275. PLANIRILATA (f. 663), *Reeve.*—Possibly the same as *M. Michelini,* but different in form, and dark-coloured all over.

276. ARABICA (f. 433), *H. Adams.*—A little shell resembling *M. Michelini* in colour, somewhat in form, but very finely sculptured and narrow, with little white specks.

277. CÆLIGENA (f. 222), *Reeve.*—Acuminated at each end, finely ridged and speckled with white.

278. RUPELLII (f. 509), *Reeve.*—Narrow and mitre-shaped, with broad ridges between the grooves.

279. SOLANDRI (f. 265), *Reeve.*—With broad, deep grooves.

280. NANUS (f. 434), *Reeve.*—Resembling *M. aurantia* on a smaller scale, and more finely sculptured.

281. TICAONICA (f. 252–254), *Reeve.*

282. CRASSA (f. 66), *Swainson.*

283. TRISTIS (f. 446), *Swainson.*—Slightly undulated on the upper part of the whorls.

284. VEXILLUM (f. 270), *Swainson.*—Tops of the whorls angular, grooves distant, spaces flat; sides of shell compressed and attenuated towards the anterior.

285. CRASSICOSTATA (f. 387), *Sowerby.*—*M. vexillæ* simili sed costis paucis, rotundis, sulcis profundè puncturatis, labio externo valdè crenulato.—Resembling *M. vexillum* in form, but with few, thick, rounded ribs, deeply punctured grooves and strongly crenulated outer lip.

286. CRETACEA (f. 577, 8), *Sowerby.*—Testa mitræformis, alba, striis longitudinalibus et sulcis tenuibus spiralibus decussata; aperturâ spiram longitudine æquanti; labio externo intùs tenuiter crenulato.—Shell mitre-shaped, white, decussated with longitudinal striæ and slight spiral sulci; aperture as long as spire, outer lip finely crenulated within.

287. BRUMALIS (f. 210–212, 290), *Reeve.*—Variety *M.* "*reticulata*" is a little more laterally compressed.

288. GRANATA (f. 214), *Reeve.*

289. MICROSTOMA (f. 291), *Sowerby.*—Testa angustata, subcylindricâ, decussatâ; anfractibus supernè fusco fasciatis, ad

latera compressis; aperturâ brevi, labio externo crenulato, medio sinuatim producto, acutè dentato.—Narrow and subcylindrical, decussated; whorls banded with brown above, compressed at the sides; aperture short; outer lip crenulated, sinuously produced in the middle, acutely toothed.

290. SEROTINA (f. 216), *A. Adams.*

291. DEALBATA (f. 571), *A. Adams.*

292. PELLIS SERPENTIS (f. 209), *Reeve.*

293. ASTRICTA (f. 206, 208, 224), *Reeve.*—Our figure 74, copied from Reeve, is not characteristic of the species. The true *M. astricta* will include the same that have since been described as *M. crenilabris*, and *M. Samuelis*.

294. NASSOIDES (f. 631), *Sowerby.*—Testa crassa, pallidè flavida, oblongo-subgibbosa, costis subinæqualibus crenatis longitudinalibus, et liris undulatis ad costas nodosis subcancellata; anfractibus septem brevibus ad suturam gradatis; aperturâ longitudine spiram æquanti, sinuatim contractâ; labio externo dentato, suprà medium incrassato, producto, infrà medium angulato, anticè acuminato.—Shell thick, pale yellowish, oblong-subgibbose, subcancellated with rather unequal crenated longitudinal ribs and spiral undulated ridges nodose upon the ribs; aperture equalling spire in length, sinuously contracted; outer lip toothed, acuminated above the middle, angular below the middle, acuminated in front.

Sect. XI. *Small shells, short and columbella-shaped, but with no lateral compression of outer lip.*

295. SEMEN (f. 659), *Reeve.*

296. PUTILLUS (f. 482), *Pease.*—MS., Brit. Mus.

297. TURBEN (f. 457), *Reeve.*—All the specimens we have seen have been mutilated by the breaking away or absorption of the lower part of the outer lip, giving an appearance of pointedness to the shell.

298. MILLECOSTATA (f. 480), *Swainson.*

299. PICEA (f. 658), —— ?—MS., Brit. Mus. A curious little globose shell so named.

300. ZEBRINA (f. 481), *Orbigny.* — MS., Brit. Mus. A smooth shell marked with fine zebra-like lines.

301. CLANDESTINA (f. 640, 641), *Forbes.*—Conical at each end.

302. PARDALIS (f. 470, 471), *Küster.*

303. CREMANS (f. 467) *Reeve.*—Somewhat irregularly formed and painted.

304. TUSA (f. 475, 477), *Reeve.*

305. LEUCODESMA (f. 465), *Reeve.*

306. CONSANGUINEA (f. 466), *Reeve.*

307. LAUTA (f. 456), *Reeve.*

308. PORPHYRITICA (f. 489), *Reeve.*

309. FESTA (f. 395), *Reeve.*

310. MEDIOMACULATA (f. 472), *Sowerby.*—A neat little species with a row of square spots in the middle of a broad white band.

311. PUELLA (f. 646), *Reeve.*

312. TRUNCULUS (f. 319), *Sowerby.*—Testa brevi, crassa, ventricosa, polita, fusca; spirâ aperturam longitudine æquanti.—A short, thick, ventricose, polished, brown shell with spire as long as the mouth.

313. NIGROFASCIATA (f. 468), *Sowerby.*—I do not find any name hitherto applied to this well-known short, dark shell, with broad, irregular ribs and a couple of white lines on the last whorl.

314. LÆVIZONATA (f. 469), *Sowerby.*—Resembling *M. nigrofasciata,* but quite smooth.

315. DICHROMA (f. 463), *A. Adams.*—With two black bands on the last whorl.

316. TRICOLOR (f. 464), *Montrouzier.*—More elevated than *M. dichroma,* with three dark bands.

317. LUCULENTA (f. 461, 462), *Reeve.*—Resembling the four preceding species, and having fewer and larger ribs than *M. tricolor*.

318. PISOLINA (f. 398, 399), *Lamarck.*—Our fig. 398 is Reeve's *M. lota*. It only differs from the other in not having the spots.

319. TUMIDA (f. 65), *Reeve.*—Scarcely in place here, but more like the small shells of this group than any others.

320. NODOSA (f. 268, 269), *Reeve.*

321. TUBEROSA (f. 267), *Reeve.*

322. PATRIARCHALIS (f. 505, 506), *Lamarck.*

323. MURICULATA (f. 202, 203), *Lamarck.*

324. FICULINA (f. 451), *Lamarck.*

325. FORTICOSTATA (f. 490), *Reeve.*—Much like *M. tumida* in form.

326. GAUSAPATA (f. 559), *Reeve.*

327. HISTRIO (f. 512), *Reeve.*

328. ARTICULATA (f. 617), *Reeve.*

329. TORNATELLOIDES (f. 294), *Reeve.*

329* PINGUIS (f. 483), *Reeve.*

330. ALVEOLUS (f. 476), *Reeve.*

331. BILINEATA (f. 409), *Reeve.*—A doubtful species.

332. CORALLINA (f. 511), *Reeve.*—Elegantly fusiform and delicately pink.

333. ANALOGICA (f. 479), *Reeve.*—A doubtful species.

334. GEMMATA (f. 649), *Sowerby.*—Testa parva, subfusiformi fusca, lævigatâ; spira longitudine aperturam æquanti anfractibus subangulatis, supra medium costatis, costis maculis albis ovatis gemmatis.—Shell small, rather fusiform, brown, smooth, spire as long as aperture, whorls rather angular, ribbed above the middle; ribs jewelled with oval white spots.

335. PUSILLA (f. 644), *A. Adams.*

336. LACHRYMA (f. 656), *Reeve.*—Somewhat conical at each end.

337. SEMICOSTATA (f. 492), *Anton.*—The upper parts of the shell are ribbed, but it is smooth from the middle in front of the last whorl.

338. RUFOCINCTA (f. 420, 653), *A. Adams.*—With a variegated reddish band near the suture and another in the middle of the whorls.

339. CAPENSIS (f. 654), *Dunker.*—Is a much plainer shell than *M. rufocincta*, with hardly any variegation.

340. PICA (f. 522), *Reeve.*

341. GRÆNLANDICA (f. 519), *Gray.*

342. VINCTA (f. 520, 521), *C. B. Adams.*—The whorls are rounder than in *M. Grœnlandica*, and the colour richer. The dark bands are not uniform.

343. PATULA (f. 526), *Reeve.*—A smooth, open-mouthed little shell.

344. APERTA (f. 320, 321), *Sowerby.*—Like *M. patula*, but slightly ribbed above, and variegated with brown. The form is also different.

345. LITTORALIS (f. 638), *Forbes.*

346. SAVIGNYI (f. 491, 639), *Payraudeau.*—*M. littoralis* is a smooth shell, while this is ribbed.

347. GRANUM (f. 642), *Forbes.*—Although much attenuated still having a resemblance to *M. littoralis.*

Sect. XII. *Spire turreted, shell ribbed downwards, aperture generally ribbed within. The more shortened, truncated species.—Sections* 12 *and* 13—*may be regarded as representing the genus* "TURRICULA" *as distinguished from* MITRA *by some conchologists.*

348. SPECIOSA (f. 414, 415), *Reeve.*

349. OSIDIRIS (f. 488), *Issel.*

350. UMBONATA (f. 400), *Sowerby.*—Not so cylindrical as *M. osidiris.* The ribs are sharply tuberculated at the upper angle, and obtusely so at the lower part of the whorl.

351. NODILIRATA (f. 385), *A. Adams.*

352. PURPURATA (f. 507), *Reeve.*

353. ROSEA (f. 484), *Swainson.*

354. SUBQUADRATA (f. 485), *Sowerby.*—Differing from *M. Pharaonis* in being more cylindrical, having more rasp-like sculpture, and a beautiful rosy tint.

355. PHARAONIS (f. 486), *H. Adams.*

356. APPROXIMATA (f. 453), *Pease.*—A somewhat unformed shell.

357. ADANSONI (f. 285, 627), *Gray.*

358. ANSULATA (f. 474), *Sowerby.*—Testa subtruncata, fusca, lævigata; spirâ aperturam longitudine æquanti, obtusâ, anfractibus obtusè angulatis, costis rotundis maculis albis ovatis ornatis.—Shell somewhat truncated, brown, smooth; spire as long as aperture, obtuse; whorls obtusely angular, ornamented with a chain-like row of oval white spots.

359. BREVICAUDATA (f. 410), *Sowerby.*—Having mislaid the memorandum of this shell, I cannot describe more characters than the figure will show.

360. CITHARA (f. 583), *Reeve.*

361. VARIATA (f. 416), *Reeve.*—This shell has the same rather truncated form as several of the preceding species.

362. DERMESTINA (f. 450), *Lamarck.*

363. AMABILIS (f. 454), *Reeve.*

364. CAVEA. (f. 514), *Reeve.*

365. DISCOLOREA (f. 516), *Reeve.*

366. PALIGERA (f. 515), *Sowerby.*—Testa parva, subfusi-

formis; spirâ turritâ, anfractibus supernè angulatis; costis subdistantibus, ad suturam tuberculatis, fusco seriatim maculatis, ultimo anfractu infrà rostrato.—Shell small, rather fusiform; spire turreted, whorls angular above, ribs rather distant, tuberculated at the suture, painted with bands of spots; last whorl rostrated below.

367. INFAUSTA (f. 513), *Reeve*.

368. RUBRA (f. 393, 394), *Reeve*.

369. MICROZONIAS (f. 633), *Lamarck*.—With a row of white spots so arranged as to come one on each rib, forming a chain on the centre of the last whorl.

370. GLANDIFORMIS (f. 493), *Reeve*.

371. AUREOLATA (f. 497. 501), *Swainson*.—Although the varieties named *M. venustula, flavescens, affinis*, etc., named as species by Reeve, appear fairly well marked in characteristic specimens, they pass by imperceptible gradations from one to the other.

372. MULTICOSTATA (f. 508), *Swainson*.—Apparently a partially formed shell which may *possibly* belong to the preceding species or to the next.

373. CROCATA (f. 391), *Lamarck*.—Differing from *M. aureolata* in having angular whorls.

374. PYRAMIDATA (f. 389, 390), *Reeve*.—Spire more elevated and less angular than in *M. crocata*. The ribs are much more curved and more roughly tuberculated.

375. CUMINGIANA (f. 502, 503), *Reeve*.—More like some varieties of *M. aureolata* than *M. crocata* in markings, but the whorls are angular at the top and rounded below the angle.

376. PULCHELLA (f. 413), *Reeve*.

377. ZELOTYPA (f. 510), *Reeve*.

378. PACIFICA (f. 388, 630), *Reeve*.

379. CADAVEROSA (f. 386, 628), *Reeve*.

380. ROSEO-CAUDATA, (f. 655), *Hanley*.

381. LATERCULATA (f. 651), *Sowerby*.—Testa fusiformis, cancellata, spirâ longitudine aperturam æquanti, anfractibus angulatis; ultimo anticè acuminato, fascia latâ, maculis laterculiformibus, bimarginatis cinctâ, medio ornatâ; aperturâ intùs liratâ.—Shell fusiform, cancellated; spire as long as the aperture; whorls angular, the last acuminated anteriorly, ornamented in the middle with a broad band bordered at each edge with tile-like spots; aperture ridged within.

382. SPRETA (f. 648), *B. M.*—A singularly characterized minute shell.

383. ARENOSA (f. 422, 423, 426, 427), *Lamarck*.—These figures represent the principal variations of this species, which may perhaps correctly be distinguished from *M. exasperata* by the ribs being much closer, and the whole sculpture closer.

384. EXASPERATA (f. 419, 424, 425), *Chemnitz*.—See preceding.

385. FIDICULA (f. 598), *Gould*.

386. BUCCINOIDEA (f. 411), *Sowerby*.—Testa parva, ovata, subcœrulea, fasciâ albâ inter fasciis fuscis duâbus medio anfractuum cincta, costis longitudinalibus subarcuatis, numerosis, et striis spiralibus sculpta; spirâ acuminatâ, aperturam longitudine æquanti; aperturâ intùs bifasciatâ, canali antico brevi.—Shell small, bluish, having two chestnut bands near the middle of the whorls, with a white one between them, sculptured with numerous bent longitudinal ribs and spiral striæ; spire acuminated, about equal to aperture in length; aperture internally banded, ending in a short canal.

Sect. XIII. *Elongated, fusiform, longitudinally ribbed, mouth generally ribbed within. Includes a large portion of the genus* TURRICULA *as adopted by some conchologists.*

387. REGINA (f. 53), *Sowerby*, "Genera of Shells."

388. TÆNIATA (f. 51, 52), *Lamarck*.—The whorls are not angular, as in *M. regina*.

389. COMPRESSA (f. 50, 133), *Sowerby*.—Quam *M. regina* magis attenuata, et lateraliter compressa, anticè attenuata recurva, anfractibus vix angulatis.—Much narrower and more attenuated and laterally compressed than *M. regina*, narrowed and recurved anteriorly. This is given by Reeve as a variety of *M. tæniata*, from which it materially differs.

390. TAYLORIANA (f. 125, 153), *Sowerby*.—Testa mitriformis, spiraliter striata, costis crebris, anfractibus convexiusculis, ultimo aurantio fuscoque tæniato : aliquando spiraliter inter fasciis fusco lineato.—Shell mitre-shaped, spirally striated, ribs close, whorls rather convex, last whorl rib-banded with orange and brown ; in a variety there are red lines between the bands. In the shape of the whorls it resembles *M. crocea*, but the characters of the ribs and colouring prevent its association with that species.

391. CROCEA (f. 120), *Reeve*.—Resembling *M. tæniata*, but with no lines bordering the white central band.

392. DENNISONI (f. 61, 119), *Reeve*.

393. ELEGANS (f. 142), *Reeve*.

394. SANGUISUGA (91*, 92*, 93*, 94*), *Linnæus*.—Smaller, with the ribs and colouring marks less defined than in *M. stigmataria*.

395. STIGMATARIA (47, 48, 49), *Lamarck*.

396. STAINFORTHII (f. 109, 136, 137), *Reeve*.

397. MELONGENA (18, 19, 132), *Lamarck*.

398. CURVILIRATA (f. 128, 9), *Sowerby*.—Quam *M. melongena* graciliora, tenuiora, aperturâ angustiorâ, costis magis sinuatis.—More slender and thin than *M. melongena*, with the aperture narrower and the ribs more sinuously curved ; it may possibly, however, be but a variety.

399. RADIUS (f. 124), *Reeve*.—Narrow and thin, with few ribs.

400. BALTEOLATA (f. 64), *Reeve*.

401. LYRATA (f. 22, 23), *Lamarck*.—Ribs defined, narrow, distant.

402. COSTELLARIS (f. 24, 25), *Lamarck.*—Ribs defined, whorls very angular.

403. VULPECULA (f. 10–14), *Linnæus.*—Ribs undefined, large; angle rounded and sloped.

404. UMBROSA (f. 123), *Sowerby.*—The colouring of the shell is dark rich burnt brown; ribs more defined than in *M. vulpecula*, raised into tubercles at the angle of the whorls.

405. PULLATA (f. 43), *Reeve.*—Resembling *M. vulpecula*, between it and *plicata*, but distinct from both.

405*. VITTATA (f. 121, 122), *Swainson.*—Zool. Illust., 1st series.

406. PLICATA (f. 26) *Klein.*

407. CINCTELLA (f. 27), *Lamarck*

408. CAFFRA (f. 20, 21), *Linnæus*

409. INTERMEDIA (f. 36, 37), *Kiener.*—Although some varieties occur shortened and corrugated almost like *M. corrugata*, and others with a smoothness approaching to *M. vulpecula*, the species is not difficult to distinguish. *M. hybrida*, Kien., is only a worn shell of this species.

410. CORRUGATA (f. 41, 42), *Lamarck.*

411. JUKESII (f. 115, 116), *A. Adams.*

412. GRUNERI (f. 130, 131), *Reeve.*

413. LÆVICOSTATA (f. 139), *Sowerby.*—A pretty little shell with rounded ribs and delicate spiral lines; only named provisionally here because not fully developed.

414. NASUTA (f. 623), *Sowerby.*—Testa subfusiformi, alba; costis sinuatim arcuatis, tenuibus; striis spiralibus subdistantibus; spirâ longitudine aperturam æquanti; ultimo anfractu anticè coarctata, attenuato, recurvo.—Shell subfusiform, white, with thin, sinuously curved, rather distant ribs; spire equalling aperture in length; last whorl anteriorly narrowed, attenuated, recurved.

415. INTERRUPTA (f. 118), *A. Adams.*—Ribs wide apart, curved, rounded at angle of whorls.

416. ORNATA (f. 117), *A. Adams.*

417. FUNEREA (f. 114), *Reeve.*—The ribs are granulated at the top, where the angle is rounded, and the lower part of the last whorl is often smooth, or nearly so.

418. ANTONELLI (f. 586), *Dorhn.*

419. TENUILIRATA (f. 407), *Sowerby.*—Testa gracilis, nigrescens, lævis; costis numerosis, tenuibus, sinuosis; spirâ aperturam longitudine æquanti, anfractibus convexiùsculis, suprà medium filo albo cincto; ultimo anfractu anticè latiùsculo.—Shell slender, darkly coloured, smooth; ribs numerous, thin, sinuous; spire as long as the aperture; whorls rather convex, girt above the middle with a thread of white; last whorl rather short anteriorly.

420. ARRACANENSIS (f. 473), *Sowerby.*—Testa breviùscula, fusca, lævi, filo albo suprà medium anfractuum cinctâ; costis subdistantibus, tenuibus, albidis; spirâ obtusâ; ultimo anfractu oblongo, infrà ad terminum costarum monilifero; aperturâ breviusculâ, medio contracto, infrà medium rotundatim expanso, ad terminum angusto.—Shell rather short, brown, smooth, girt with a white line above the middle; ribs rather distant, thin, whitish; spire obtuse; last whorl oblong, beaded below at the end of the ribs; aperture rather short, contracted in the middle, roundly expanded below the middle, narrow at the end.

421. RUBRICATA (f. 197), *Reeve.*—Not *M. impressa*, as in the text of Conch. Icon.

422. CREBRILINATA (f. 151, 152), *Reeve.*

423. LAYARDI (f. 590), *A. Adams.*

424. MACANDREWI (f. 421), *Sowerby.* — Testa gracilis tennis fulva, costis tenuibus eleganta curvis, et striis spiralibus sculpta.—A pretty, graceful, thin, fawn-coloured shell, with spiral striæ and elegantly curved longitudinal thin ribs.

425. LILACINA (f. 634), *Sowerby*.—Testa lilacina, quam *M. marmorea* magis solida.

426. MARMOREA (f. 635, 636), *A. Adams*.

427. CATENATA (f. 657), *Swainson*.—Fusiform, with a little tubercle at the top of each rib.

428. EBENUS (f. 329, 334, 5, 6), *Lamarck*.—Fig. 329, represents a doubtful shell, which might perhaps be separated from this species with propriety. *M. chelonia* and *M. livida*, *Reeve*, are believed to be only varieties.

429. KIENERI (f. 324), *Sowerby*.—A specimen of this shell, exactly the counterpart of Kiener's figure given for *M. ebenus*, has come to hand, and it is a perfectly distinct, turreted species.

430. ANGULOSA (f. 531, 534, 535), *Martini*.

431. MIRABILIS (f. 629), *A. Adams*.—The large shell in the British Museum, late Mr. Cuming's, presents a different appearance from either variety of *M. angulosa*. It is more rounded at the upper angle of the whorls, and the outer lip is pressed inwards in a curve, also the sculpture is more sinuous. It may be a variety, but if so, one of singular beauty.

432. CLATHRATA (f. 532, 616), *Reeve*.—The later figure is that of a young, unformed shell. The lower part of it is of a pink colour.

433. RUGOSA (f. 533), *Sowerby*.—Tanc. Cat.

434. MUTABILIS (f. 543, 544), *Reeve*.—The shell is very angular, and the ribs have a backward, sinuated curve.

435. LUCIDA (f. 541), *Reeve*.

436. NODULIFERA (f. 530), *A. Adams*.

437. MODESTA (f. 539), *Reeve*.

438. CINERACEA (f. 494, 495), *Reeve*.—The whorls are angular, and the ribs at the angle have each a little white

spot. These spots run into each other, forming a continuous band. The shell is otherwise gray, or brown. The aperture is very short.

439. DECORA (f. 536), *Reeve.*

440. MILITARIS (f. 537), *Reeve.*—With a bright scarlet band on the lower part of last whorl.

441. LUBENS (542), *Reeve.*

442. DIMIDIATA (f. 396), *Sowerby.*—Proc. Zool., 1870. I feel now inclined to regard this as an unformed shell, probably of *M. elathrata.*

443. CIMELIUM (f. 643), *Reeve.*

444. CORBICULA (f. 538), *Sowerby.*—1870.

445. COMPTA (f. 540), *A. Adams.*

446. AMANDA (f. 592), *Reeve.*

447. JAPONICA (f. 156), *A. Adams.*

448. ACUPICTA (f. 372 and 548), *Reeve.*

449. BELLA (f. 376), *A. Adams.*

450. PRÆTEXTA (f. 198), *A. Adams.*—Formed and sculptured like *M. zebuensis,* but with tessellated markings.

451. ZEBUENSIS (f. 192, 3), *Reeve.*

452. INTERSTRIATA (f. 392), *Sowerby.*

453. RORATA (f. 240), *Gould.*

454. SULUENSIS (f. 606), *Adams et Reeve.*

455. DEFRANCII (f. 597), *Payraudeau.*—A neatly ribbed and turreted dark little shell.

456. CRUENTATA (f. 138, 144), *Chemnitz.*—The variety named *M. Harpæformis* has the ribs more prominent and angular, but various degrees are to be found in a number of specimens.

457. SUTURATA (f. 585), *Reeve.*—A coarsely grained shell, with straight-sided whorls.

458. SEMIFASCIATA (f. 581, 582), *Lamarck.*

459. SEMISCULPTA (f. 159), *Adams et Reeve.*—A pupa-like shell, with the upper whorls ribbed, and the lower plain.

460. FUSIFORMIS (f. 384), *Chemnitz.*—This shell corresponds with the figure of *Chemnitz*, which *Kiener's* figure does not.

461. DORHNI (f. 140, 141), *Gray.*

462. ARMIGER (f. 589), *Reeve.*

463. TURRIGER (f. 191), *Reeve.*

464. DÆDALA (f. 601), *Reeve.*

465. SCULPTILIS (f. 596), *Reeve.*—Closely compressed, with curved ribs.

466. INERMIS (f. 600), *Reeve.*—With cylindrical, straight-sided whorls, prettily marked across the ribs by interrupted lines and white bands.

467. RECTILATERALIS (f. 404), *Sowerby.*—Testa turrita, acuminata, costis rectis longitudinalibus et striis spiralibus sculpta, ultimo anfractu oblongo, rectilaterali, suprà et infrà fusco tæniato; medio albo fasciato et castaneo lineato; aperturâ spiram longitudine æquanti.—Shell turreted, acuminated, sculptured with straight longitudinal ribs and spiral striæ; last whorl oblong, straight-sided above and below, banded with brown and white; aperture as long as spire.

468. SUBTRUNCATA (f. 405), *Sowerby.*—Testa pyramidata, fusca, fasciâ pallidâ medio anfractuum cinctâ, densè cancellatâ; spirâ elongatâ, anfractibus rectilateralibus, ad suturam angulatis; ultimo anfractu oblongo, anticè subtruncato, rostrato.—Shell pyramidal, brown, with a pale band in the middle of the whorls, closely cancellated, angular at the suture, last whorl oblong, anteriorly somewhat truncated, rostrated. In sculpture resembling *M. obeliscus*, but straight and compressed at the sides, and slightly truncated above the contracted termination.

469. EXARATA (f. 602), *A. Adams.*

470. MICA (f. 591), *Reeve.*—Like *M. exarata*, banded with dark chocolate brown, but differing in being narrower and more pyramidal.

471. LIGATA (f. 584), *A. Adams.*—The body whorl does not slope downwards, as in *M. exarata*, but is more cylindrical.

472. RUBELLA (f. 594), *Adams et Reeve.*

473. SCITULA (f. 418), *A. Adams.*

474. INTERTÆNIATA (f. 154), *Sowerby.*—Shaped like *M. rectilateralis*. The lower part of the last whorl is contracted, and the linear markings do not run over the ribs.

475. MICHAUDI (f. 157), *Crosse et Fischer.*—The ribs are smaller and more finely marked than in *M. alauda*.

476. ALAUDA (f. 134, 135, 158), *Quoy.*

477. DESHAYESII (f. 155, 618), *Reeve.*

478. RUSTICA (f. 143), *Reeve.*—The ribs are broad, rounded, and distant.

479. ARMILLATA (f. 496), *Reeve.*—Remarkable for the shortness of the whorls, the last being little more than half as long as the spire.

480. TURRICULA (f. 647), *A. Adams.*

481. CÆLATA (f. 587), *Reeve.*—The last whorl narrow and very cylindrical.

482. COLINSONI (f. 621, 2), *A. Adams?*

483. HASTATA (f. 620), *Sowerby.*—The name *casta*, having been previously occupied for the well-known cylindrical species, it is necessary to use another name for this species. Mr. Adams, treating "Turricula" as a distinct genus, repeated an old specific name.

484. SUBULATA (f. 149, 150), *Lamarck.*

485. MACROSPIRA (f. 146), *A. Adams.*

486. OBELISCUS (f. 126, 127), *Reeve.*

487. RADIX (f. 552), *Sowerby.*—*M. obelisco* simili, sed costis distantibus, arcuatis.

488. FILISTRIATA (f. 402), *Sowerby.*—Testa angusta, pyramidata, tenuiter decussata, fulva, flammis pallide fuscis infrà medium anfractuum ornata; lineâ impressâ prope suturam spiraliter cincta; spirâ attenuatâ, ultimo anfractu brevi, eleganter fusiformi.—Shell narrow, pyramidal, finely decussated, fulvous, ornamented at the lower part of the whorl with pale brown flames, encircled with a spiral impressed line near the suture; spire attenuated, last whorl short, elegantly fusiform.

489. LONGISPIRA (f. 403), *Sowerby.*—Testa tenuis, gracilis, fulva, fasciâ albâ medio anfractuum cincta, costis angularibus, eleganter sinuatis et striis spiralibus sculpta, spirâ attenuatâ, anfractibus numerosis, turritis, ultimo anfractu anticè attenuato.—Shell thin, slender, fawn-coloured, encircled with a white band in the middle of the whorls; sculptured with angular, elegantly curved ribs and spiral striæ; spire attenuated, whorls numerous, turreted; last whorl attenuated in front.

490. SPICATA (f. 190, 383), *Reeve.*

491. MUCRONATA (f. 377–380), *Swainson.*—Our fig. 377 represents *M. concentrica, Reeve,* which cannot be separated from this species.

492. VERRUCOSA (f. 381, 382), *Reeve.*—Besides the strong tubercles with which the ribs are studded, the form of the shell is different from that of *M. mucronata,* the last whorl being longer.

493. SALMONEA (f. 375), *Sowerby.*—Testa fusiformi, flavida, salmoneo nebulata, spirâ acuminatâ, anfractibus conveniùsculis, crebriliratis; ultimo anfractu, supernè angulato, costis obliquis, interstriatis ad angulum echinatis armato, anticè attenuato, acuminato; aperturâ intùs striatâ.—Shell fusiform, yellowish, clouded with a salmon tint; spire acuminated, whorls rather convex, closely ribbed; last whorl angular above, armed with oblique interstriated ribs, with tubercles at the angle, anteriorly attenuated, acuminated; aperture striated within.

494. OBTUSISPINOSA (f. 373), *Sowerby*.—Testa subfusiformis, flavida, salmonea, rubroque nebulata, costis subdistantibus, ad angulum anfractuum obtusè spinosis, medio bituberculatis et striis spiralibus sculpta; spirâ turriculatâ, ultimo anfractu ad medium ventricoso, infrà contracto.—Shell subfusiform, yellowish, clouded with salmon and red, armed with rather distant ribs bluntly spinose at the angle, with two tubercles in the midlle, and spiral striæ; spire turreted, last whorl ventricose to the middle, contracted anteriorly.

Genus DIBAPHUS, *Philippi*.

495. EDENTULUS (f. 608, 609), *Swainson*.—There is now no doubt of this shell belonging to the MITRA tribe; and the only reason for not giving it a place in the genus is the absence of columellar plaits. Otherwise, it should head the section IX, (species 224 to 234), formed for *Mitra dibaphiformis* and others.

ANALYSIS OF MITRÆ.

Sect. I. Mitre-shaped; spiral, generally punctured grooves; lip crenulated. Sp. 1–23. Ex. *episcopalis.*

Sect. II. Same as Sect. I., but passing to pyramidal, seldom puncture-grooved; lip not crenulated. Sp. 24–83. Ex. *casta, guttata, glabra,* etc.

Sect. III. Mitre-shaped or pyramidal; scabrous or granulated. Sp. 84–150. Ex. *sphærulata.*

Sect. IV. Short, spirally ridged; aperture contracted; lip crenulated. Sp. 151–174. Ex. *rubiginea.*

Sect. V. Acorn-shaped. Sp. 175–188. Ex. *glans.*

Sect. VI. Conical. Sp. 189–203. Ex. *conica.*

Sect. VII. Short; teeth on inner edge of flattened outer lip; columella callous. Sp. 204–212. Ex. *Ziervogliana.*

Sect. VIII. Narrow, cancellated or granular; aperture contracted, and outer lip crenulated. Sp. 213–223. Ex. *exilis.*

Sect. IX. Outer lip obliquely truncated, like *terebellum.* Sp. 224–234. Ex. *dibaphiformis.*

Sect. X. Columbella-shaped; outer lip contracted above the middle. Sp. 235–294. Ex. *aurantia, decurtata.*

Sect. XI. Short, with no contraction of lip. Sp. 295–347. Ex. *pardalis.*

Sect. XII. Principally the shorter species of the genus "*Turricula.*" Sp. 348–386. Ex. *Pharaonis.*

Sect. XIII. Fusiform, long. Normal form of the genus "*Turricula*" as adopted by some conchologists. Sp. 387–494. Ex. *regina.*

Genus Dibaphus. Sp. edentulus 495, f. 608, 9.

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subulata, *Lam.*, 484, f. 149–50.
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terebralis, Sw.—subulata, 484, f. 149–50.

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tusa, *Rve.*, 304, f. 475, 7.
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umbrosa, *So.*, 404, f. 123.
undulosa, *Rve.*, 184, f. 362.
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zephyrina, *Duc.*, 29, f. 306–8.
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zonata, *Marr.*, 25, f. 62.

MONOGRAPH OF THE GENUS

MUREX, *Linnæus.*

Generic Character.—Testa canalifera spiraliter plus minusve lirata aut striata, varicosa; varicibus utroque anfractu tribus aut plurimis, ad laterem sinistrum canalis plerumque exfoliatis, canali lamina discoidea aut elongata, plana, aut umbilicata versus marginem aperturæ externum extensa partim penitusve tecto. Operculum corneum, nucleo laterali aut terminali.—It is difficult to define this genus, so as to include all the species that do, and to exclude all that do not, belong to it. Many of the forms seem to pass by almost imperceptible degrees into similar forms in the neighbouring genera, such as Purpura, Ricinula, Fusus, and Trophon. A line of some sort is attempted to be drawn, by requiring two characters to constitute a *murex*: namely, that the varices shall be *true*—that is, indicating by their margins that they have formed outer lips at periods of arrested growth; and that this canal shall be covered wholly or partially by a columellar plate turned towards its outer margin. In endeavouring to apply this line, I have admitted certain species with doubt, Blainvillei, dubius, cristatus, &c., omitting others, such as horridus, buxeus, &c., as belonging rather to the Purpuridæ; others, such as laminiferus, carduus, luculentus, as Trophons or Fusi; and decussatus, fiscellum, &c., as Ricinulæ. M. gyratus and muricatus will help to complete what may be considered a good genus, Latiaxis. M. salebrosus and its allies perhaps rightly form the genus Vitellaria. Thus there will be about twenty species omitted from those enumerated in the latest (Reeves') Monograph. On the other hand, about sixty-five undoubted murices have been added, raising the revised list to two hundred and forty.

Species.

FIRST DIVISION. (Three varices.)

Sect. I. Spines and long canals.

1. TENUISPINA, f. 7, *Lamarck.*—Testa spinoso-trivaricosa, griseo-fulva, inter varices quadrituberculata, spiraliter crenulatim costata, interstitiis crenulatis; spinis ad varices curvis, numerosis, radiantibus, ad canalem decenis, elongatis, eleganter curvis, interstitialibus novenis retrorsim curvis.—The varical margin of the canal is beautified by a double row of elegantly curved spines, ten of which are extended outwards, and nine bent inwards over the canal.

2. SCOLOPAX, f. 8, *Dillwyn.*—Testa superne ventricosa, lævis vel leviter spiraliter lirata, spiraliter castaneo-lineata, varicibus ad anfractus brevispinosis, ad canalem elongatis, eleganter curvis, senis et quinis; apertura majuscula, intus castanea.—The spines on the body are rather short and arched; those on the canal are curved, as in *tenuispinosus*, six outwardly and five inwardly over the canal. Our fig. 8 represents an unusually smooth specimen, as the species is sometimes spirally ridged.

3. TRIBULUS, f. 3, *Linnæus.*—Testa spinoso-trivaricosa, spiraliter crenato-costata, inter varices trituberculata, interstitiis nonnumquam maculatis; spinis ut in *M. tenuispina*, sed paucis, brevioribus, ad caudam senis aut quinis.—The spines are arranged as in the preceding, but are fewer and shorter, particularly on the canal. The spiral ridges and longitudinal tubercles are crenulated in the same way, and sometimes show spotted articulations. Fig. 4 is the rather short-spined and colour-banded variety named *aduncospinosus*, by *Reeve*.

4. CONCINNUS, f. 5, *Reeve.*—Testa *M. tribulo* similis, spinis brevioribus, lineis spiralibus rubro-castaneis super liras decurrentibus.—Distinguished from the short-spined, banded variety of *M. tribulus* by the clear red-brown lines running on the top of the spiral ridges.

5. CABRITTII, f. 137, *Bernardi.*—Testa spinoso-trivaricosa, subrosea, lata, subdepressa, spiraliter prominente lirata, inter varices trituberculata, varicibus pone excavatis spinis brevibus

paucis; canali crassiusculo, elongato, anfractibus brevibus, ad suturam subexcavatis; apertura antice unidentata.—Of a light pinky colour, with depressed whorls, which are hollowed near the suture, where the tubercles end. Spines short on the whorls, rather long on the upper part of the canal.

6. RARISPINOSUS, f. 2, *Lamarck.*—Testa griseo-fulva, spinoso-trivaricata, spiraliter lirata, inter varices trituberculata, spinis breviusculis, ad anfractus tribus, ad canalem tribus brevibus; apertura subovata dente marginali magno; spira producta anfractibus subangulatis.—I cannot possibly agree that Lamarck could be thinking of any such shell as my *M. formosus* when referring to the figure in Martini for his *rarispina*. His description agrees better with this shell than with any other. The spines are sometimes longer than in our specimen.

7. CORONATUS, f. 199, *A. Adams.*—Testa crassa fusca-grisescens castaneo bifasciata, spiraliter lirata, inter varices tuberculatim triplicata; spinis paucis, ad angulum una prominenti, infra una, ad canalem duabus.—The claim of this little Japanese shell to specific distinction will be best understood by seeing the figure or the specimen. Among the long-channelled group it most nearly resembles *M. rarispinosa*.

8. BREVISPINOSUS, f. 10, *Lamarck.*—Testa superne ventricosa, subquadrata, sublævigata, griseo-fulva, inter varices, tuberculis senis, biseriatim dispositis munita; varicibus breviter quadrispinosis; apertura oblonga, margine crenulato, infra unidentato, canali unispinoso.—The body-whorl is broad, and the interstices between the varices have four or six tubercles in distinct rows.

9. MACGILLIVRAYI, f. 162, *Mörch.*—Testa *M. brevispinæ* similis, sed angustiora, spiraliter lirata.—Narrower in the body-whorl than the preceding, and having a spirally ridged surface.

10. OCCA, f. 12, *Sowerby.*—Testa leviter spiraliter lirata, inter varices quadrituberculata, glauco-fusca, anfractibus brevispinosis, canali elongato, recto spinis senis gradatim elongatis; apertura oblonga, margine angulatim undato unidentato.—This shell is known from *M. rarispina* by its arrangement of distant tubercles between the varices and by the more quadrate form of the body-whorl.

11. TERNISPINA, f. 1, *Lamarck.*—*M. tribulo* similis, griseo-subviridis, spinis rectioribus, liris spiralibus haud crenulatis, tuberculis interstitialibus nullis, interstitiis solum crenulatis. —The colour is more greenish-grey than in *M. tribulus*, with the spines much straighter, the interstices only, and not the spiral ridges crenulated; no tubercular plaits between the varices.

12. NIGRISPINOSUS, f. 11, *Reeve.*—Testa *ternispinæ* similis, sed spinis crassis, rectioribus, nigris, anfractibus ventricosis, varicibus latioribus.—Remarkable for the darkened ends of its thick straight spines placed on broad varices.

13. PLICATUS, f. 9, *Sowerby.*—Testa griseo-purpurascens superne lata, ventricosa, inter varices plicato-tuberculata; varicibus tribus, crassis ad angulum anfractuum unispinosis, infra quinque-spinosus ad caudam trispinosus, cauda breviuscula, apertura magna; spira brevi, anfractibus angulatis. —Very ventricose in the body part, with thick varices and short spines.

14. FUNICULATUS, f. 19, *Reeve.*—Testa breviter claviformis, fulva, rubro-lineata, inter varices plicato-trituberculata, varicibus tuberculatis; spinis ad angulum una brevi curva, infra tribus parvis ad canalem una, canali brevisculo, subrecurvo; apertura ovata utrinque denticulata, margine externo crenulato.—Resembling *M. messorius*, but with strong red lines on the tubercles, and only one very small spine on the canal.

15. RECURVIROSTRIS, f. 16, *Broderip.*—Testa claviformis fulvo-purpurea, subglobosa, spiraliter tuberculato-lirata, spira brevissima, varicibus sub-spinosis, spinis parvis, ad canalem una aut duabus; apertura rotunde ovata utrinque dentata et crenulata; canali brevisculo recurvo.—The body is small, the spines very short and few.

16. NIGRESCENS, f. 18, *Sowerby.*—Testa quam *M. recurvirostris* magis ventricosa, purpurea, nigrofasciata, spinis obtusissimis, canali brevi, arcuato, unispinoso.—Deeper in the body-whorl and more ventricose than *M. recurvirostris*. It may be known partly by an inkiness in the colouring. The tubercle on the angle of the varices is scarcely developed into a spine.

17. RECTIROSTRIS, f. 15, *Sowerby.*—Testa clavata, fulva, castaneo bifasciata, spiraliter lirata, inter varices plicato trituberculata, anfractibus brevibus, sutura excavata; vari-

cibus prominentibus, pone excavatis, ad angulum acute unispinosus; apertura ovata, margine crenato; canali elongate recto, superne frequenter bispinoso.—The suture and the back of the thickened varices are excavated, the canal is long and narrow.

18. MESSORIUS, f. 20, *Sowerby*.—Testa subviride fusca, breviter claviformi, spiraliter lirata, longitudinaliter plicato-bituberculata; varicibus crassis, pone excavatis, ad angulum spina brevi curva, ad canalem spina producta arcuata, et infra spina parva armatis; apertura subrotunda, labio interno plicato, labio externo intus dentato, extus crenulato; canali brevi.—The curved spine below the aperture on the canal is shaped like a reaping hook. The canal is in most specimens more gradually sloped than in the specimen figured.

19. CHRYSOSTOMA, f. 83, *Gray*.—Testa breviter clavata, ventricosa, spiraliter lirata, inter varices nodoso-triplicata, subaureo-fulva; spira brevi, anfractibus angulatis, depressis; varicibus crassis, tuberculatis, ad angulum subspinosis; apertura magna, aurea, labio interno lato, medio crenulato, labio externo denticulato, margine crenato, canali breviusculo, recurvo, superne subspinoso.—With very large body-whorl, depressed spine, rather short and recurved canal.

20. BELLUS, f. 14, *Reeve*.—Testa breviter claviformis subventricosa, pallide fulva, purpureo bifasciata, lineis nigrescentibus interruptis cincta, spiraliter lirata, trifariam inter varices plicato-tuberculata, varicibus crassis, tuberculatis, ad angulum subspinosis; apertura subovata, marginibus crenulatis, canali breviusculo, oblique subrecurvo.—Differing from the preceding in colour, markings, and proportions. The shell named *M. Cracherodi*, in the British Museum, is probably an immature specimen of this.

21. MINDINAOENSIS, f. 21, *Sowerby*.—Testa fusca, superne pyramidata, inter varices spiraliter lirata, longitudinaliter tri-tuberculata; varicibus rotundis, dorso foveolatis; spinis brevissimis, ad angulum una, ad aperturam octonis parvis; canali elongato, gracili, recurvo, superne breviter trispinoso, apertura parva, labiis crenulatis.—The whorls are small in proportion to the length of the narrow canal.

22. HAUSTELLUM, f. 17, *Linnæus*.—Testa claviformis superne angulatim rotunda, fulva spiraliter undulatim lirata, spadiceo lineata, inter varices plicato-tritubereulata, spira

brevi anfractibus angulatis; apertura subrotunda, margine laminatim producto, rubro; canali elongato, attenuato, superne subspinoso.—The inner lip forms a singular laminated projection.

Sect. II. As Sect. I., with exfoliations between spines on varices.

23. PLICIFERUS, f. 36, 194, *Sowerby*.—Testa subfusiformis, ventricosa, spiraliter granoso-lirata, inter varices angulatim trituberculata, varicibus tribus; spinis brevibus, acutis, canaliculatis, inæqualibus, ad angulum anfractuum una elongata, varicibus supra angulum et infra apertnram peculiariter spinoso-membranaceis; canali lateraliter recurvo inæqualiter postice trispinoso; apertura majuscula; spira producta, anfractibus subangulatis.—We have met with a large specimen of this so much more developed than the one represented at fig. 36, that we have thought it necessary to give the additional illustration, 194. A very remarkable peculiarity is the spiniferous webbed appendage above the angle on the varices, which the first specimen did not show so well.

24. BEANII, f. 211, *Bernardi*.—Testa gracilis, eleganter fusiformis tenuis fere alba, pallide fulvo trifasciata, trifariam spinoso-costata, inter varices spiraliter striata, longitudinaliter quinquefariam costata, costis distanter tuberculatis; varicibus tenuibus; spinis fronte apertis, una superiori elongata, alteris quatuor membranaceis, ad canalem duabus membranaceis; canali breviusculo, recurvo; apertura ovata, margine producto, labio externo crenulato; spira canalem æquanti, anfractibus octonis, productis.—This remarkable shell is unique in the collection of the late M. Taylor. The webbed character of the spines on the lower part of the varices gives it a certain resemblance to *M. pliciferus*, from which, however, it is quite distinct.

25. FORMOSUS, f. 6, *Sowerby*.—Testa breviuscula, trifariam spinoso-varicosa, purpurea, spiraliter undulatim lirata, trituberculata, spiuis una superiori elongata subarcuata, medianis brevibus, inferioribus submembranaceis; ad caudam paucis brevibus, canali lateraliter recurvo, tenui.—This is certainly not, as Reeve and Kiener have supposed, the *rarispina* of Lamarck. There are some beautiful specimens in the British Museum, in which the membrana-

ceous character of the spinous parts about the aperture are much more conspicuous than in the specimen figured.

26. CALCAR, f. 35, *Kiener.*—Testa *M. formosæ* similis sed alba, varicibus multo magis membranaceis.—There is a gradation almost complete in the webbed character of the latest varices, between this species and *M. formosus*, some specimens of the latter being almost as much webbed.

27. SENEGALENSIS, f. 29, *Gmelin.*—Testa subfusiformis ventricosus, fuscus, spiraliter lirata, inter varices plicato-bituberculata; varicibus crassis, ad angulum anfractuum unispinosis, infra aperturam laminatim fimbriatis, canali brevi lateraliter recurvo, superne unispinoso.—Having something of the *motacilla* form, and the latest developed varices having a laminated fringe.

28. NUBILUS, f. 71, *Sowerby.*—Testa *M. Senegalensi* simili, graciliora, castaneo-trifasciata, canali breviori, trispinoso; varicibus antice haud fimbriatis.—It is possible, but not probable, that this may be a Senegalensis in an early stage of development. It is more fusiform and has no fringe above or upon the canal.

29. ROSSITERI, f. 83, *Crosse.*—Testa turbinata, flavida, minute scabra, inter varices obscure unituberculata, varicibus crassis, antice breviter spinoso-frondosis; spina brevissima, anfractibus tribus, depressis, ultimo subgloboso; canali elongato; apertura subrotunda, prope marginem utrinque rosea, lirato-dentata.—A very aberrant form and difficult to group with any others, unless it be with *M. laciniatus*, *triqueter* &c., whose fronds are only developed anteriorly.

30. MOTACILLA, f. 129, 130, *Lamarck.*—Testa subquadrata, ventricosa, spiraliter lirata, fulva, vel rosea, fusco rubroque fasciata, spiraliter lirata, inter varices plicato-bituberculata; varicibus costatis, fronte subplanatis, ad angulum breviter unispinosis, infra aperturam fimbriatim spinosis; canali valde recurvo, attenuato.—The canal in f. 130 is of stunted growth. Several of the following have been taken for this species, which may now be considered as finally determined.

31. ELEGANS, f. 25, *Beck.*—Testa solida ventricosa, claviformis, tortua, fulva, spiraliter lirata, liris angustis concinnis rubris, inter varices tuberculo maximo munita, varicibus crassis, latis, sublæviratis; canali tortuosim recurvo.—Distinguished from *M. motacilla* by the neat spiral brown painted

ridges, by the solidity of the shell, the thickness of the varices, and other characters.

32. CAILLETI, *Petit.*—Having figured a species under this name as attached to it in the Brit. Mus. Col. (see our fig. 22, 23), I did not see the figure in the Journal till after the plates were made up. On examination I am now of opinion that fig. 22, 23 must be added to f. 24 to represent *M. similis*, and that *M. Cailleti* is a distinct species approaching *M. elegans*, but more elongated and rugose.

33. SIMILIS, f. 22, 23, 24, *Sowerby.*—Testa brevis, quadrato-subglobosis sublævigatis, griseo-fulva, castaneo bifasciata, inter varices infra angulum plicis tuberculiferis tribus vel quatuor munitis; varicibus angustis breviter spinosis, infra aperturam breviter fimbriatis, canali dorsaliter valde recurvo.—Smoother and with shorter body than *M. motacilla*, and the canal curved rather towards the back than sideways. The varices have not the flattened appearance seen in those of the above.

34. NODATUS, f. 28, *Reeve.*—Testa subfusiformis, fulva, inter varices trituberculata, spiraliter lirata, articulatim rubro-lineata; varicibus breviter spinosis; canali breviusculo, lateraliter recurvo.—The varical spines on the angle of the whorls are sharp and produced, those round the mouth and the one on the canal are also produced, but shorter.

35. ANTILLARUM, f. 209, *A. Adams.*—Testa fusiformis, utrinque acuminata, alba, spiraliter tenuiter lirata, inter liras tuberculosim triplicata; varicibus angustis prominentibus pone excavatis, spinis acutis armatis; spira longiuscula, anfractibus octonis, rotundatis, apertura subovata, margine externo producto, crenulato, intus septemdentato; canali retrorsim curvo.—Nearly approaching *M. nodatus*, but more compact, with the varices hollowed at the back, the spines shorter, the mouth dentated, and the canal recurved, but not obliquely.

36. TRILINEATUS, f. 26, *Reeve.*—Testa subfusiformis, medio ventricosa, alba, spiraliter concinne lirata, rubro trilineata, inter varices plicato-trituberculata; varicibus rotundis, inermis, pone excavatis; spira pyramidata, anfractibus superioribus angulatis; apertura subrotunda, margine producto crenulato, canali breviusculo, tortuosim recurvo.—A beautiful shell, having the general form of the *motacilla* group, but

with more pyramidal spire, and distinguished by three spiral red lines, showing on the body-whorl.

37. POMUM, p. 135, *Gmelin*.—Testa globoso-subfusiformis crassa, solida, scaberrima, spiraliter granoso-lirata, inter varices trifariam aut trifariam plicis duabus aut tribus tuberculiferis munita, pallide fulva aut fumoso-fusca; varicibus crassis, pone excavatis, prominente cottato-tuberculatis, antice fimbriis laminatis angulatis, marginem duplicatum efformantibus, ad canalem laminatim frondosis; apertura subrotunda, lutea, ad margines nigro late picta et maculata; columella in laminam arcuatam producta, crenulata; canali latissimo, retrorsim curvo.—Remarkable for the roughness of the texture and the bright black patches of colour on the columellar and outer lips.

38. OCULATUS, f. 134, *Reeve*.—Testa granulosa lutea rubescens, *M. pomo* similis, sed multo gracilior et magis fusiformis; apertura alba nigro maculata; varicibus alternatim nigro pictis, supra suturam quasi-oculatis; spira producta.—Very much more slender and fusiform than *M. pomum*, and having a white aperture with a black spot at the joining of the lips, which is shown like an eye above the suture.

40. TRIGONULUS, f. 120, *Lamarck*.—Testa elongato-fusiformis, rosea, fusco maculata, spiraliter distante lirata, liris ad plicas tuberculatis, inter varices longitudinaliter triplicata; varicibus augustiusculis, tuberculatis, antice ad aperturæ marginem et ad canalem in fimbriam laqueatam expansis; canali elongato subtruncato, recto; apertura magna, ovata, margine crenulata; spira elevata, anfractibus octonis subelevatis.—Quite different from *M. pulchella*, and easily distinguished from *M. triqueter*.

41. ROSEOTINCTUS, f. 108, *Sowerby*.—Testa trivaricosa, elongato-fusiformis, rosea, rubro maculata, spiraliter costata, inter varices longitudinaliter tricostata; varicibus obliquis crassis, prominentibus, ad caudam tri-frondosis; cauda producta.—In general aspect like *M. trigonulus*, but with the varices scarcely web-fringed at the lower part.—Philippines, Cum. Brit. Coll.

42. TRIQUETER, f. 114, *Born*.—Testa gracile fusiformis, albida, rosea tincta, fusco maculata vel fusca, albo fasciata, spiraliter lirata, inter varices triplicata, plicis tuberculatis;

varicibus postice crassis, rotundis, antice versus et super canalem laqueatim fimbriatis; apertura ovata, margine dentato, canali brevi, lato; ad terminum curva spira pyramidali, anfractibus subdepressis.—A well-known shell of roughly tubercled aspect, variously coloured, with the lower part of the varices fringed and fluted. One of the varieties has been named *M. Cumingii*.

43. PULCHER, f. 119, *A. Adams*.—Testa eleganter fusiformis rubescens, fusco maculata et fasciata, spiraliter lirata, intervarices triplicata; varices angustis, tuberculiferis, antice plicato fimbriatis, canali elongato, attenuato, eleganter curvo; apertura ovata, margine intus dentato.—I think Mr. Adams has rightly renamed this shell, Mr. Reeve having erroneously identified it with *M. trigonulus*.

44. LACINEATUS, f. 118, 138, *Sowerby*.—Testa ventricoso-fusiformis, crassa, rugosa, rubescens, vel aurea, fusco maculata, spiraliter lirata, inter varices plicato-bituberculata; varicibus crassis, superne subfrondosis, ad aperturam et infra lacineatis, ad canalem subalatis; spira breviuscula, anfractibus quinis, rotundis ultimo ad canalem contractis, apertura subrotunda margine crenato.—In sculpture resembling *M. triqueter*, &c., but short or ventricose. The fronts of the varices are beautifully lace-fringed.

45. BARCLAYI, f. 133, *Reeve*.—Testa trigono-fusiformis obliqua, roseo-lutescens, indistincte fusco fasciata et maculata, spiraliter lirata et interstriata, inter varices plicis tribus elongatis, tuberculatis munita; varicibus crassis, extantibus, valide tuberculatis fronte, antice præcipue in fimbriam laqueatam gradatim expausa; apertura ovata, margine externo intus dentato; canali eleganter recurvo.—Although of a different form, this species has a strong affinity with *M. trigonulus*, the characters being the same in the two species, excepting that one is broad and ventricose while the other is narrowly fusiform.

Sect. III. Three varices with branched fronds.

46. MONODON, f. 55, 56, *Sowerby*.—Testa fusiformis, rufescente-fusca, frondibus nigrescentibus, vel albida, apertura rubro marginata, spiraliter subrugose lirata et striata, prope suturam excavata, varicibus crassiusculis, frondibus elongatis, arcuatis, subramosis, ad marginem aperturæ supra tribus

elongatis infra duabus minoribus, ad canalem duabus, superiori longissima retrorsim valde arcuata; apertura subrotunda, margine externo angulatim laqueato, infra dente magno armato; canali elongato, eleganter curvo, ad terminum libero. —Having one large tooth at the lower part of the aperture, and one of the long curved fronds of each varix curiously curved upwards.

47. CERVICORNIS, f. 30, *Lamarck.*—Testa gracile fusiformis, spiraliter lirata, fulva; varicibus crassis, rotundis, vix spinosis ad canalem libere extantibus frondibus elongatis inæqualibus, duabus ramosis, peculiariter bifurcatis duabus ad canalem spinosis; canali elongato, augusto subangulatim recurvo.—The long bifurcate fronds have exactly the appearance of a stag's antlers.

48. AXICORNIS, f. 31, *Lamarck.*—Testa gracile fusiformis, fulva, vel fusca-nigrescens, inter varices plicato-bituberculatis; varicibus ramoso-frondosis, frondibus ad marginem aperturæ duabus inæqualiter elongatis spinoso-ramosis ad terminum expansis alteris intermediis parvis subpalmatis, una majuscule, duabus parvis; canali arcuatim curvo.—The fronds of this species are likened to those of a kind of stag anciently called the axis; they are not bifurcate, but expanded and spinous at the ends. There is a darker and more ventricose variety, which we have not figured.

49. RAMOSUS, f. 69, *Linnæus.*—Testa magna subtrigona, ventricosa, alba, fusco nebulosa, spiraliter distanter lirata et interstriata, inter varices tuberculis plurimis pliciformibus munita; varicibus ramoso-frondosis, frondibus crispis dentato-laqueatis apertura magna, margine laqueato et denticulato, dente maximo infra armato; columella rosea, laminatim producto.—*M. ramosus* is variable in size, colouring, and some other characters, but always has its fronds curled backwards, and always shows, at the margin of the aperture, the strong projecting tooth characteristic of so many species, but wanting in all the varieties of *M. calcitrapa.*

50. CYACANTHA, f. 160, *Mus. Brit.*—Testa griseo-fulva et alba, fauce purpurea, trigona, crassa, minute scabra, spiraliter distanter lirata et interstriata, inter varices plicatim unituberculata; varicibus crassis, pone foveolatis, fronte obtuse et breviter frondosis, fronde superiori magno, subdepresso, frondibus ad marginem aperturæ infra angulatim exfoliatis et productis.—The prominent tooth at the margin of the

aperture and other characters show that the species is related to *M. ramosus*. The short development of the frond and the exfoliation of the varix at the margin of the aperture give it a different aspect.

51. ANGULIFERUS, f. 66, 68.—Testa pyriformis ventricosa, subtrigona, fusca, vel alba fusco fasciata, spiraliter lirata, inter varices tuberculo magno vel duobus armata; frondibus spiniformibus brevibus, infra ad marginem aperturæ angulatim exfoliatis; canali producto; spira brevi, anfractibus angulatis, ultimo inflato, ad suturam crenatis, margine aperturæ unidentato.—Like a small *M. ramosus* with its spires reduced. In regard to the tooth and the exfoliated fronds beneath it, the shell much resembles *M. cyacantha*, in which they are, however, much more developed.

52. PONDEROSUS, f. 67, *Chemnitz.*—Testa brevi, quadrangulata, crassissima, pallide fulva, spiraliter impresso-lirata, varicibus latis, crassissimis, fere nudis, ad angulum obtuse unispinosus: ad canalem breviter bispinosis; canali brevi, apertura magna, margine externo crenato, infra unidentato. —Believed by some conchologists to be a thickened dwarf variety of *M. angularis*.

53. ELONGATUS, f. 70, *Lamarck.*—Testa fusiformis, *M. ramosi* similis, sed elongata, haud trigona, spira elevata, anfractibus productis, angulatis.—If one could soften the substance of a small *M. ramosus*, and pull it out at the spiral end, drawing the body where narrower, the product would be exactly what we find in *M. elongatus*. It is with the former that *Lamarck* compares it, and most points in the description accurately correspond, which is not the case with the shell ascribed to the species by Mr. Reeve.

54. CALCITRAPA, f. 64, 65, *Lamarck.*—Testa scabra, alba, conspicue fusco-fasciata; spiraliter distanter angulatim lirata, interstriata, inter varices plerumque tuberculoso-uniplicata; varicibus crassis, pone foveolatis, frondibus breviusculis, dentato-laqueatis, rectiusculis, ad aperturam quaternis et duabus intermediis, ad canalem duabus; spira breviuscula, anfractibus angulatis, ad suturam crenatis; apertura magna, margine denticulato et angulatim crenato.—The most characteristic variety is the one with rather short fronds, and the broad bands showing sharply on a white ground. The caltrop is an ancient instrument of war, thrown on the ground before an enemy to entangle and injure his horse's feet.

55. APPROXIMATUS, f. 62, *Sowerby*.—Testa fusca, apertura violacea, quam *M. calcitrapa* tenuior, magis elongata.—This shell may possibly be considered distinct from *M. calcitrapa* although identical in sculpture, form and fronds. The thinness of the shell, its colour, and the absence of brown bands, however, render it distinguishable if not distinct. The white shell (fig. 55) might go with either. Whether we consider the species distinct or not, it is certainly not Lamarck's *M. elongatus* as supposed by Reeve, and in introducing it at all I am obliged to give it another name. Reeve's *Sinensis* is Lamarck's *elongatus*.

56. PURPURATUS, f. 63, *Reeve*.—Testa fusca, quam *M. calcitrapa* magis elongata, crassior, margine aperturæ purpureo picta, canali elongato, sinistrorsim recurvo.—A unique shell in the British Museum, which appears overgrown and distorted, approaching, if not identical with *M. calcitrapa*.

57. CRASSIVARICOSUS, f. 52, *Reeve*.—Testa breviter subtrigona, solida, fusca, spiraliter granoso-striata et lirata, inter varices bituberculata, spira brevi anfractibus superne angulatis, varicibus incrassatis, latis, breviter frondosis, apertura magna, alba, labio externo intus dentato, canali lato, breviusculo.—There is no certainty that this may not be a stunted thickened form of some known species, say *M. calcitrapa*, for example.

58. PALMA-ROSÆ, f. 37, *Lamarck*.—Testa trivaricosa, oblongo-fusiformis, scabra, fusca, nigro fasciata, spiraliter costata, inter varices longitudinaliter tricostata, anfractibus obscure angulatis, ultimo breviusculo, subito ad canalem contracto; varicibus crassis, prominentibus; frondibus foliatim spinosis, ad terminum roseis, superne medioque quaternis, superiori majori, prominenti, ad terminum recurvo bifurcato, ad caudam tribus recurvis; cauda elongata recta; apertura subelongata, margine utrinque crenulato, nigro maculato.—The rose-branched murex differs from all others of its group in the bifurcate upper frond of the varix, the absence of interstitial fronds, and in the black and white denticulations of *both* borders of the aperture.

59. SAULIÆ, f. 54, *Sowerby*.—Testa trivaricosa, elongato-fusiformis, tenuiuscula, fusca, rubro-lineata, spiraliter tenuiter lirata, inter varices bituberculata; anfractibus exsertis: varicibus angustiusculis, frondosis; frondibus roseis, foliatim spinosis superne medioque quaternis cum minoribus intersti-

tialibus, superiori bifurcato; ad caudam tribus recurvis; cauda elongata, distincta, angusta, labio externo acutissime dentato.—Lighter, more slender, with the whorls of the spire more distinct and produced than *M. palma-rosæ*, and having small interstitial fronds between the larger ones.

60. AFFINIS, f. 45, 46, *Reeve*.—Testa quam *M. Saulieæ* brevior crassior, frondibus brevibus, intermediis nullis.—The shells which we would place in this species differ from *M. Saulieæ* in having no intermediate fronds, and from *M. Palma-rosæ* in having very short ones not at all branched or spread at the ends. The white fronded variety was figured in the Conch. Ill. as a variety of *M. maurus*.

61. STERIÆ, f. 38, *Reeve*.—Testa trivaricosa, breviter fusiformis, crassa, spiraliter scabroso-costata, inter varices unituberculata; fusca, nigrofasciata; varicibus crassis, frondosis; frondibus purpureis foliatim spinosis ultimæ varicis superne et medio quaternis superiori producto, bifurcato; interstitialibus parvis; ad canalem duabus; cauda brevi.—A shell of thick and short growth, having the small intermediate fronds of *M. Saulieæ* and the prominent bifurcated upper frond of *M. palma-rosæ*.

62. SPECTRUM, f. 51, *Reeve*.—Testa elongato-fusiformis, curvantia-fuscescens, subgranosa, spiraliter tuberculatim lirata, inter varices triplicatim tuberculata, liris tuberculatis castaneo pictis; varicibus crassis, frondosis; frondibus conspicuis, muriato-foliatis, crispatis superioribus longe extantibus, subramosis, alteris brevioribus, tribus parvis intermediis; canali elongato, rectiusculo.—Quite distinct from *Murex palma-rosæ* in all details of sculpture and colour, yet resembling it in general form. I cannot doubt its identity with *Chicoreus imbricatus* of Higgins and Marrat, described from specimens collected in the Island of Grenada.

63. RUBIGINOSUS, f. 61, *Reeve*.—Testa trivaricosa, scabra, fulva, fusco-nigrescenti tæniata, subventricosa subangulatim fusiformis; spiraliter lirata, inter costas prominente unituberculata; varicibus crassis; frondis subramosis, latiusculis, subpalmatis apertura alba magna; spira et cauda subæqualibus.—If an ordinary specimen of *M. adustus* were very much enlarged, spread, and lightened in colour, and its fronds a little flattened, it would present a resemblance to this species. At first it was thought that *M. rubiginosus* might be *M. torrefactus* with more fully developed fronds,

but the latter has a much longer spine and shorter canal. Mr. Reeve's shell, of which I have a fine example before me, must be regarded as a good species.

64. TORREFACTUS, f. 47, *Sowerby*.—Testa trivaricosa, ventricosa, subangulatim fusiformis spiraliter scabroso liratis, rubrofusca, rubro-nigrescente tæniata, varicibus crassiusculis, frondibus brevibus, nigrescentibus spinoso-subramosis; anfractibus productis, ultimo magno, cauda brevi, lata, apertura magna, labio denticulato.—In comparison with *M. affinis* and *M. palma-rosæ*, *M. torrefactus* has a larger body whorl and aperture, a much more produced spire, separated whorls and shorter and broader canal.

65. MICROPHYLLUS, f. 49, 50, *Lamarck*.—Testa subangulatim fusiformis, crassis, fulva vel fusca, rubro vel nigro fasciata, inter varices prominente bicostata, spiraliter scabrolirata, liris ad costas valide tuberculatis; varicibus crassis, obliquis, brevissime frondosis; frondibus anterioribus subpalmatis; cauda brevi, lata.—Differing from *M. torrefactus*, *affinis*, and *maurus* in the strongly wrinkled and tuberculated character of the ribs.

66. MAURUS, f. 54, *Broderip*.—Testa trivaricosa, fusca, rubro-nigrescente fasciata, angulatim fusiformis crassis, inter varices bituberculatis; varicibus rotundis, crassis brevissime frondosis; frondibus roseis, superioribus subobsoletis, inferioribus obtusis, brevibus; canali brevi; labio externo crenulato.—A thick shell, with the upper fronds scarcely, and the lower ones shortly developed.

67. GUBBI, f. 75, *Reeve*.—Testa fusiformis subtrigona, nigrescens, spiraliter angulatim lirata et striata, liris irregulariter tuberculatis, spira acuminata, anfractibus angulatis supra angulum concavis; varicibus frondosis, frondibus angustis, irregularibus, una mediana bifurcata, una superiori producta, falcata; apertura cinereo-alba, labio externo, intus conspicue dentato.—The conspicuous teeth near the margin of the aperture, the angularity of the ribs, the concavity of the whorls near the suture and the peculiar greyblack colour of all but the aperture, distinguish this species from all others.

68. STRIGATUS, f. 81, *Reeve*.—Testa subtrigono-fusiformis fusca, castaneo strigata, spiraliter lirata, inter varices obscure bituberculata, varicibus regulariter frondosis, frondibus novenis, subæqualibus florescentibus, denticulatis.—Remark-

able for the chestnut stripes across the body and the regular row of flower like, nearly equal fronds on the varices.

69. ADUSTUS, f. 42, 43, *Lamarck.*—Testa breviter fusiformis, fusco-nigrescens and rosea, rufo-lineata, spiraliter costata et striata, inter varices, tuberculo maximo, rotundo munita, varicibus crassis, creberrime frondosis, frondibus dentato-muricatis, retrorsim crispatis; apertura alba, margine crenato, columella rosea, aut aurea; canali brevi, lato.—The two varieties figured, although rather different in appearance, cannot be separated as species.

70. DESPECTUS, f. 85, *A. Adams.*—Testa nigrescens *M. adusti* similis, sed frondibus rectis.—Resembling *M. adustus* excepting that the fronds are straight. It has also been named *M. fuscus.*

71. AUSTRALIENSIS, f. 58, *A. Adams.*—Testa subtrigona, solida breviter fusiformis, alba et rufo-fusca lineis dense castaneis et liris undulatis cincta, inter varices plicatim unituberculata; varicibus crassis, costatis, frondibus crassis, dentatis truncato-palmatis terminis albis; apertura subrotunda, margine externo crenulato et dentato, canali breviusculo, recto; spira breviuscula, anfractibus brevibus, obtuse angulatis.—This shell resembles *M. despectus* in some respects and might be almost described as a mottled *M. adustus*, with straight blunt fronds.

72. MULTIFRONDOSUS, f. 192, *Sowerby.*—Testa parva, trigono-fusiformis, rosea, scabra, spiraliter costata et interstriata, inter varices tuberculis duobus, pisiformibus inæqualibus munita; varicibus validis, regulariter usque ad terminum canali frondosis, frondibus undecenis angustis dentatis, fronte subpalmatis; spira acuminata; apertura ovata.—Although this pretty little shell of the rose-bud group may be the young of a larger species, there is no known species to the early stages of which it may be traced or to whose advanced character it would be developed. The varices have eleven beautifully sculptured little fronds in a symmetrical row.

73. TRIVIALIS, f. 80, *A. Adams.*—Testa anguste-fusiformis, utrinque acuminata, minute scabra, subrosea, frondibus adustis, spiraliter lirata, inter varices unituberculata; varicibus minute frondosis; frondibus angustis, brevibus, denticulatis; spira pyramidata, acuminata; canali breviusculo, lato.—A pretty little shell with dark denticulated lines

which cross it spirally and form slightly projecting fronds on the varices.

74. CROCATUS, f. 53, *Reeve*.—Testa trigono-fusiformis, medio fusca, frondibus rubido-crocatis, spiraliter lirata, inter varices obscure biplicato-tuberculatis, frondibus breviter ramosis, ramis ad anfractus superiores subobsoletis.—The specimen figured by Reeve from Mr. Norris's collection has the appearance of stunted growth in the upper varices.

75. RUBESCENS, p. 74, *Broderip*.—Testa angulatim fusiformis, rosea, lævis, spiraliter liris fusco-pictis sculpta, inter varices valide unituberculata; varicibus crassis fusco liratis, superne angulatis, fronte obtuse frondosis, frondibus canaliculatis, ad angulum una, infra duabus minutis, duabus majoribus, et ad canalem duabus majoribus.—The fronds are few and only slightly developed, but the chestnut lines on the spiral ridges give great beauty to this rose-coloured shell.

76. HUTTONIÆ, f. 57, *Wright*.—Testa vivide aurantia, breviter subfusiformis, solida, spiraliter valide lirata, inter varices tuberculo magno, rotundo, pliciformi munita, varicibus crassis, latis, breviter frondosis, frondibus medianis retrorsim crispatis; apertura subrotunda, columella rosea, canali rectiusculo, spira pyramidata, anfractibus angulatis brevibus.—A beautiful orange-coloured shell of the *adustus* group.

77. ACULEATUS, f. 27, *Lamarck*.—Testa gracilime fusiformis, fulva ad aperturæ marginem, frondes et canalem rosacea, spiraliter lirata, inter varices obscure plicato, bituberculata; frondibus quinis, breviusculis, spinoso-ramosis, ad terminum subpalmatis, intermediis, pluribus parvis ad marginem aperturæ; spira acuminata, anfractibus distinctis; canali leviter curvo.—The fronds of this elegant little species are short, palmated and spinose. They are fewer and less branched than in *M. Sauliæ*, of which the species, although quite distinct, might be taken for a delicate miniature copy.

78. BANKSII, f. 59, *Sowerby*.—Testa subtrigono-fusiformis, castanea, frondibus nigricantibus, spiraliter lirata, liris lineatim castaneo pictis, inter varices tuberculatim triplicata: varicibus augustiusculis, frondibus fimbriatim foleaceis, recurvis, superiori subdivisa, majori; canali elongato, frondibus quaternis marginato.—The fronds are peculiar, the top one on each varix being larger than the others and bifurcated.

79. TOUPEOLI, f. 48, *Petit*.—Our figure is a somewhat imperfect and reduced copy of the original in the French

Journal of Conchology. I have omitted to examine it with sufficient care, but it seems to me to represent a very unformed shell, rather unsatisfactory as a species.

80. CAPUCINUS, f. 40, *Chemn.*—Testa breviter subfusiformis, atropurpurea, spiraliter lirata, inter varices late sed obscure bituberculata, varicibus crassis, dorso acute costatis, fronte squamoso-lamellatis margine foliatis; apertura ovata, margine crenato, aureo; canali brevi, lato, spira producta, anfractibus angulatis.—The shell figured in the Conchological Illustrations as *M. castaneus* and labelled *M. lignarius* in the British Museum is now known to be truly four-variced, although it has been considered a *M. capucinus* of accidental growth.—See *M. quadrifrons*, sp. 171 a. fig. 216*.

81. RUFUS, f. 39, *Lamarck.*—Testa trigono-subfusiformis rufo fusca spiraliter granoso-lirata, inter varices obscure unituberculata, varicibus frondosis; frondibus novenis, spinoso-palmatis.—The peculiarity of this species consists in a row of nine expanded fronds along the varices, reaching to the end of the canal. An albino variety occurs.

82. FLORIFER, f. 136, *Reeve.*—Testa trigono-subfusiformis alba, fusco tincta, spiraliter crassilirata, et interstriata, inter varices tuberculo magno elongato munita; varicibus crassis, costatis, frondibus novenis extantibus productis fusco-nigricantibus, lateraliter spinis albo-terminatis armatis; apertura alba, margine laqueato; spira breviter pyramidata, anfractibus quinis subdepressus.—The parts between the varices are broader than those of *M. rufus*, the sculpture is not articulated, but stronger in character, and the intermediate tubercle is very large.—The fronds stand out straightly, and are furbelowed at the sides with white tipped spines, and not palmated.

83. DILECTUS, f. 60, *A. Adams.*—Testa tenuiuscula, trigonofusiformis, delicate fulva, rosea et alba, spiraliter granosolirata, inter varices tuberculo uno magno et uno parvo pliciformibus munita; varicibus tumidis prominentibus frondosis, frondibus foliatis, dentatis, palmatis; apertura subrotunda, margine crenato.—This species might pass for an extremely delicate, thin-fronded variety of *M. rufus*.

84. PALMIFERUS, f. 41, *Sowerby.*—Testa rosacea fusiformis, spiraliter lirata et interstriata, inter varices bituberculata,

varicibus frondosis, frondibus brevibus dentato-foliaceis; spira acuminata, producta, anfractibus subanguliferis, apertura subrotunda, margine externo dentato.—A pinky shell more fusiform than *M. rufus*, &c., but like them having the fronds open and palmated.

85. TERRITUS, f. 77, *Reeve*.—Testa fulva, breviter trigono-fusiformis, spiraliter confertim et angulatim lirata, inter varices unituberculata; varicibus dorso angulatim costato, fronte laminatim fimbriatis, margine angulatim frondosis, frondibus connexis, inæqualibus, rectis.—Cleverly named, for the shell looks startling and startled.

86. PUDORICOLOR, f. 79, *Reeve*.—Testa breviter fusiformis, rosea, spiraliter prominente lirata, liris inter varices bituberculatis; varicibus medio tuberculatis, ad angulum superiorem, infra medium et ad canalem frondibus quinis palmatis ornata; spira acuminata, anfractibus angulatis; apertura ovata, margine externo intus denticulato.—Having many characters in common with *M. corrugatus*, from which it is, however, distinct, this beautiful little shell might pass for a coloured miniature of that species.

87. SALLEANUS, f. 73, *A. Ad.*—Testa cinereo-fulva, fusco strigata, ovato-fusiformis, spiraliter crasse et prominente lirata, inter varices plicatim unituberculata; varicibus magnis, costatis, ultimo supra infraque, et ad canalem frondosis, frondibus dentato-fimbriatis.—Having more thickened varices, fewer fronds and only one large tubercle between the varices, this species has not the corrugated appearance of *M. corrugatus*.

88. THOMASI, f. 84, *Crosse*.—Testa crassa, breviter angulatim subfusiformis, fusca, rubescens, spiraliter lirata et interstriata; inter varices late unituberculata; varicibus tribus crassis, costatis, infra raro et breviter frondosis; apertura intus versus marginem externum lirato-dentata.—Mr. Crosse has described this shell as having six varices, but on minute examination and comparison with shells of a similar form, I am persuaded that it is really trivaricose. The alternating varix is only the interval swelled into a broad tubercle. I have altered the figure theoretically in copying to show my meaning.

89. CORRUGATUS, f. 72, *Sowerby*.—Testa pallide citrina vel rufo-fuscescens, ovato fusiformis spiralifer crassilirata, inter varices plicatim bituberculata; varicibus nodosis, fronte

peculiariter squamoso-laminatis ; ultimo ad aperturam antice laminatim læqueato, ad canalem duabus productis, spira mediocri, anfractibus rugosis, angulatis ; aperturæ margine crenato ; canali brevi, lato. —The thickened tuberculated ridges and the short laminated fronds give a wrinkled appearance to this species.

90. LAQUEATUS, f. 78, *Sowerby*.—Testa breviter trapezoidea pallidissime rosea vel fulva, spiraliter costata, inter varices unituberculata ; varicibus costatis, laminatim fimbriatis, fimbria profunde laqueata, apertura ovata, margine externo intus denticulato.—A pretty little species, whose fluted fringe along the varix gives it a peculiar appearance.

90*. ALABASTRUM, f. 191, *A. Adams*.—Testa angusta, fusiformis alba vel pallidissime citrina, varicibus tribus subirregularibus angustis, acute nodosis ; plicis intermediis, nodosis ad anfractum precedentem elevatis ; apertura ovata, canali breviusculo, lato ; spira acuminata, anfractibus angulatis, ad suturam foveolatis.—A very pretty ivory-white fusiform shell, with neatly defined tuberculous varices, and between them a longitudinal plait, which is extended over the suture, and reaches the previous whorl.

90*b*. OBELISCUS, f. 233, *A. Adams*.—Testa subcylindrica, angusta, elongata, alba, castaneo maculata, spiraliter subobsolete granoso-costata ; spira elongata, obtusa, anfractibus septenis, ad suturas excavatis, inter varices loba projecta septiforme divisis, canali brevissimo, crasso, valde retrorso ; varicibus tribus, continuis tuberculatis, ad anfractum precedentem elevatis ; apertura brevissima, subpyriformi, margine externo intus denticulato.—The deep excavation of the whorls at the suture is formed into pits by the projection of the varices and of a septiform lobe between them. In this character there is a curious resemblance between this and the preceding species, although the shells are of totally different forms. In form, this species resembles *M. erosus* and *M. alveatus*, but it has three regular continuous varices.

Sect. IV. Three varices, winged.

91. PINNIGER, f. 93, *Broderip*.—Testa subtrigona, lævis, purpureo-fulvescens, ad canalem et aperturæ marginem fusco punctata ; inter varices unituberculata ; varicibus alatis, alis superne falcatim productis, fronte incisis margine dentatis,

infra medium longe interruptis, tum ad canalem breviter productis, ad marginem dentatis; apertura parva; canali clauso.—The shell we have figured is unusually short. The interruption in the varical fringe between the body of the whorl and the canal is remarkable.

92. OSSEUS, f. 91, *Reeve*.—Testa oblongo-fusiformis albida, medio anfractuum fascia fusca cincta, *M. Gambiensi* similis, major, spira longe pyramidata; ala ad canalem parva; canali peculiariter inflato.—A larger shell than either of the two preceding with more produced pyramidal spire, and curiously inflated covering to the broad caudal canal.

93. GAMBIENSIS, f. 94, *Reeve*.—Testa pallide fulva, hinc illic rubro maculata, *M. pinnigeri* similis, multo magis elongata, alis haud tantum productis.—Formed on the same model as the preceding, but much more slender, with narrower wing-fringes, less produced hook-like projections above, and with some distinct scattered reddish spots.

94. ALABASTER, f. 124, *Reeve*.—Testa angulatim fusiformis ventricosa, albida, spiraliter obscure costata, inter varices bituberculata; varicibus crassiusculis late membranofimbriatis superne lobo tubiformi crasso valde producto, canaliculato armatis; canali breviusculo, fere aperto, apertura magna; spira producta pyramidata, anfractibus angulatis.—The original specimen, which was found beach-rolled on the shore of one of the Philippine Islands, is unlike any other.

95. ACANTHOPTERUS, f. 90, 127, *Lamarck*.—Testa fusiformis, alba, interdum supra angulum anfractuum fusco fasciata, spiraliter costis plus minusve distinctis cincta, inter costas minute cancellatis, vel fere lævis, varicibus continuis, alatis, late fimbriatis ad angulum anfractuum in lacertum canaliferum utrinque laciniatum projectis, lacinia infra lacertum contracta, tum ad aperturam rotundatim expansa, infra ad canalem coarctata et expansa, apertura subovata, margine externo denticulato: spira pyramidata, anfractibus angulatis.—The projecting chanelled arm at the angle of each whorl forms a series of fringed hooks on the spire.

96. TRIFORMIS, f. 92, *Reeve*.—Testa intense fusca vel pallide griseofulva, rugosa, *M. acanthopteri* similis, sed alis ad angulum anfractuum haud tantum projectis et infra contractis, anfractibus inter varices bilobatis vix angulatis.—Mr. Reeve was right in distinguishing this species from *M.*

acanthopterus, the upper projection and lower contraction of the fringed varices being much less prominent, and the shell being altogether of coarser character."

97. QUINQUELOBATUS, f. 218, *Sowerby*.—Testa angulatim fusiformis, delicate fulva aut alba, utrinque acuminata, lævis, inter varices unituberculata; spira pyramidata, anfractibus superne angulatis; varicibus tribus extantibus, quinquefrondosis, frondibus planulatis, superioribus hamatis majoribus serratis trigonis inferioribus lamina membranacea connexis, apertura ovata; canali elongato, acuminato, rectiusculo, vix recurvo, clauso.—A beautiful small shell of the winged tribe, having the fronds in five serrated flattened hooked lobes, slightly connected at their base with narrow web-like laminæ; an example of the beautiful shells to be found in Mr. Taylor's collection.

98. BIPUNCTATUS, f. 188, *Sowerby*.—Testa angulatim fusiformis, lævis, aurantia, utrinque acuminata, inter varices biangulata, bituberculata; varicibus alatis, fimbriatis, rubro lineatis, superne in spinam acutam fronte excavatam projectis; spira elevata, anfractibus angulatis, supra angulum purpureo bipunctato; canali angusto; apertura angusta, margine crenulato.—Notwithstanding the channelled spire or arm at the angle of the last varix, I think this shell is quite distinct from *M. triformis*. The purple spots on each whorl above the angle are very peculiar. The specimen is in the British Museum.

99. RUBRIDENTATUS, f. 105, *Reeve*.—Testa anguste fusiformis, alba, fulvo tincta, spiraliter obtuse lirata; inter varices approximatim bituberculata; varicibus undulatis laminiformibus latis, ad apicem oblique continuis; apertura ovata, labio externo intus dentibus rubris novenis armato, margine laqueato; canali longiusculo, recto.—An interesting shell, with confluent laminated varices and neatly-painted red teeth inside the outer lip.

100. CLAVUS, f. 117, *Reeve*.—Testa alba, rosea tincta, solida, elongata, claviformi, spiraliter inter varices unituberculata, spiraliter distanter costata; varicibus crassis laciniatim fimbriatis, supra angulum loba producta uncinatis, plerumque anfractibus medianis obsoletis: ultima angulatim expansa, late fimbriata; apertura dentata, columella rosea, rectiusculo; canali elongato, recto; spira longe producta, anfractibus angulatis.—Only a few of the upper and middle whorls retain

the hooked angles of the varical fringes. The last varix is very widely frilled.

101. BIPINNATUS, f. 116, *Reeve*.—Testa angusta, alba, ad aperturam subrosea, dense et rugose spiraliter lirata, *M. clavi* similis, spira haud tantum producta magis angulata, anfractibus supra medium tumidis, varicibus et plicis tuberculatis intermediis vix distinctis, anfractu ultimo magis producto et laqueato, fimbria ultima trigona, expansa et laqueata, ad canalem anguste laciniata, infra aperturam coarctata.—This and the preceding species are normally trivaricose shells; but in *M. bipinnatus* the upper varices are scarcely to be distinguished from the intermediate tubercles, and in the other, while some of the varices retain their hooked projections, others have been either absorbed or undeveloped.

102. PELLUCIDUS, f. 122, *Reeve*.—Testa trigono-subfusiformis tenuis minute squamoso-laciniata, alba semipellucida, inter varices unituberculata, varicibus fimbriatim alatis, eximie sculptis, ultima late expansa, trilobata; apertura angusta, prope labium externum denticulata, spira elongata, anfractibus novenis, angulatis.—A very much more light and slender shell than the *M. tripterus*. It is somewhat intermediate between the two preceding key-shaped species and *M. tripterus*.

103. TRIPTERUS, f. 121, *Born*.—Testa ovato-subtrigona, alba medio et ad aperturam subaurantia, spiraliter lirata, pulcherrime squamata, inter varices plicato-unituberculata; varicibus late alatis, fimbriatis, superne rotundis; apertura anguste subovata margine dentato, canali recto; spira breviter pyramidata, anfractibus versus suturam subplanulatis.—Shorter than any of the preceding fimbriated species, and straighter than *M. pinnatus*.

104. PINNATUS, f. 123, *Wood*.—Testa eleganter fusiformis alba utrinque acuminata, spiraliter lirata inter liris longitudinaliter squamoso-striata, inter varices unituberculata; varicibus angulatim alatis, peroblique continuis; ad canalem libere projectis; spira pyramidata, acuminata; canali oblique recurvo.—This comparatively common species is known at a glance from *M. tripterus*, although resembling it in sculpture, by its elegantly oblique form.

105. EXPANSUS, p. 100, *Sowerby*.—Testa trapezoidea,

pallide carnea, spiraliter striata, inter varices unituberculata; varicibus latissime superne et usque ad canalem expansis, superne angulatis; canali brevissimo.—A winged species differing from *M. Eurypteron* in the wings not being so much lobed, and being continued nearly to the end of the canal.

106. PHYLLOPTERUS, f. 107, *Lamarck.*—Testa trapezoidea alba, interdum fusco late fasciata, obtusissime spiraliter costata, inter varices prope medium unituberculata; varicibus tribus latissime expansis lobatis superne perelevatis; versus terminum canali extensis, canali subelongato; spira acuminata, anfractibus angulatis; apertura ovata, margine laqueato.—This species is much larger, much more angular and alate and less ribbed than *M. foliatus*, to which it bears a general resemblance. The original is described by Lamarck as white and somewhat ribbed. Miss Saul's banded specimen may perhaps be correctly referred as above, although it is doubtful. It is not without hesitation that I withdraw the proposed name of *trialatus*. A smaller specimen is found in the collection of the late Mr. Taylor, which has a laterally laminated operculum.

107. FOLIATUS, f. 110, *Lamarck.*—Testa oblonga trivaricosa, transverse distanter costata, alba, fusco late fasciata; costis late fere ad canalis terminum alatis, alis lobatis, superne elevatis, canali clauso apertura magna, ovata, antice unidentato.—An oval, ribbed shell having the three varices expanded broadly. The older writers above quoted were perhaps more correct in placing this among the purpuræ on account of the lateral operculum, than later conchologists have been in regarding it as a Murex. It is, however, an extremely muriciform shell.

108. BURNETTI, f. 97, 128, *Adam & Reeve.*—Testa subovata, fumoso-fusca, inter varices obtuse costata, medio tuberculata; varicibus tribus late alatis, prominente lobatis profundissime canaliculatis ad canalem dimidiatim terminantibus canali oblique uncinato; apertura magna, ovata, labio externo lobato, antice dente maximo armato.—The recent importation of this curious species, with its deeply furbellowed varices and its sublateral operculum, so different from the worn specimen first figured, has disposed me to give the second figure.

109. MACROPTERON, f. 111, *Deshayes.*—Testa corneo-fusca,

anguste fusiformis, lævis, inter varices rotunde unituberculata; varicibus laminatim alatis, ultimo late expanso, foliaceo lobato; spira acuminatim producta; canali curvo, angusto.—There is in the British Museum a specimen in which the laminated expansion of the last varix is wider than in the specimen figured.

110. CENTRIFUGA, f. 101, *Hinds.*—Testa trigono-fusiformis corneo-fusca, spiraliter tenuissime striata, distanter sublirata, inter varices unituberculata, varicibus late alatis, superne in spina compressa elevata cuneata productis, medio et infra spinoso-lacineatis, ad canalis medium desinentibus; apertura subtrigona; canali longiusculo attenuato, lateraliter subrecurvo, spira acuminata, anfractibus angulatis.—Remarkable for the flattened spinous form of the upper wing of the varices.

111. EURYPTERON, f. 106, *Reeve.*—Testa late subtrigona fulva, medio fusca, inter varices spiraliter striata quadricostata, varicibus alæformibus, tenuibus, fronte canaliferis conspicue laqueatis, supra angulum anfractuum angulatim expansis, ultima latissime; apertura ovata.—The wing-like expansion of varices, particularly the last, is remarkable in this species.

112. SPECIOSUS, f. 125, *A. Adams.*—Testa late trigona, pallide fulva, lævis, spiraliter evanide quinque-costata, inter varices unituberculata; varicibus usque ad terminum canalis superne bilobatis, productis, acuminatis, canaliculatis, inferiori multo majori, supra aperturam late expansa; apertura ovata, magna; canali arcuato, gradatim attenuato.—The wing-like varices are channelled and expanded into large angular lobes.

Winged, with three varices.

113. PLORATOR, f. 89, *Adams.*—Testa subtrigona, lævis, fusca, spiraliter ad suturam et supra medium albo bicincta, varicibus continuis late alatis, alis superne angulatim productis; apertura parva subrotunda alba, canali longiusculo subarcuato angusto; spira pyramidata, anfractibus rotundis.—In the figured specimen 89, of this interesting species, the angles of the wings are worn round.—A young specimen in the Taylor collection shows their true form.

114. STIMPSONI, f. 196, *A. Adams.*—Testa parva fulva

cancellata subtrigona, varicibus laminiformibus superne angulatim productis, ultimo ad aperturam lacineato late expanso; spira acuminata, anfractibus angulatis; apertura majuscula, subtrigona, canali brevi.—The general surface is cancellated, and the last varix is broadly fringed all round the aperture and down to the end of the canal.

115. ANGASI, f. 189, 190, *Crosse*.—Testa tenuis, subtrigono-fusiformis, pallide fulva aut subrosea, interdum bifasciata, lævis, inter varices obscure quadrituberculata; varicibus laminatim fimbriatis, superne angulatim elevatis, subhamatis, margine dentato; spira producta, acuminata; anfractibus angulatis, supra angulum plano-depressis.—It is strange that this little shell should have been described as a *Typhis*, not having the tube which projects from the angle between the varices in that genus.

116. CANCELLATUS, f. 34, 82, *Sowerby*.—Testa subtrigona alba solida spiraliter lirata, trivaricosa, inter varices nodoso-cancellatis, varicibus crassis costellatis, fronde superiori fistuloso, apertura parva, margine crenulato, canali lato brevi clauso.—The varices are more thickened and flattened in the specimen f. 32 than in 82, and the latter was formerly described by myself in the Proceedings of the Zoological Society as *M. canaliferus*. But the difference is only one of development, such as obtains in most of the species.

117. MITRÆFORMIS, f. 32, *Sowerby*.—Testa *M. uncinario* similis, sed tenuis, gracilis, alis uncinatis magis elevatim arcuatis; anfractibus infra versus suturam contractis.—Mr. Reeve puts this and the preceding species together. It is a question of degree, figures 32 and 33 seem extremely different, and those who possess specimens of the former may prefer applying the distinctive name to it. The more intermediate specimens still keep much nearer to *M. uncinarius*.

118. UNCINARIUS, f. 33, *Lamarck*.—Testa subtrigona lata solida fulva lævigata, inter varices inconspicue unituberculata, trivaricosa, varicibus crassiusculis superne ad angulum anfractuum productis uncinatis, infra brevissime digitatis.—Only the authority of *Deshayes* would have led me to agree with *Reeve* that Lamarck was describing this shell when he referred (however doubtfully) to Martini's figure of *M. clavus*.

119. FESTIVUS, f. 96, *Hinds*.—Testa subfusiformis, utrinque acuminata, fulva, minutissime granulata, spiraliter inciso-

sulcata, duplicatim rubro lineata, inter varices plicatim unituberculata; varicibus tumidis, medio lateraliter retrorsim compressis, supra infraque fimbriato-alatis; apertura magna ovata, margine dentato et crenulato; canali lato.—The middle of each varix is compressed backwards in a peculiar manner, leaving the extremities narrowly fringed. Delicate red lines run in twos across the body of the shell and over the varices.

Sect. V. Three varices, plain.

120. EMARGINATUS, f. 95, *Sowerby*.—Testa solida, subtrigona, albo-fulvescens, spiraliter obtuse costata, granulata; costis inter varices medio unituberculatis, varicibus superioribus crassis, obtuse angulatis, paulo expansis, tum abrupte terminatis; canali clauso, obliquo; apertura subovata, antice unidentata.—The ribs form into tubercles on the back of the varices and in the middle between them. The expansion of the varices terminates abruptly at the commencement of the canal, which is curved obliquely.

121. ABYSSICOLA, f. 217, *Crosse*.—Testa ovata, trivaricosa, striato-decussata, griseo-albida, fulvo fasciata, inter varices plica angusta prominenti munita; varicibus latis, foliaceis compressis, nodosis, inciso-lobatis; apertura subovata, intus fusco-violacea, canali brevi, oblique subrecurvo.—Very delicately and closely striated in both directions, incisions across the flattened part of the varices give them a lobed appearance.

122. LINGUA-VERVECINA, f. 98, 99, *Chemnitz*.—Testa subpyriformis subscabrosa, infra subattenuata, alba, aut nigrocastanea, inter varices valide tuberculata; varicibus crassis, expansis, dorso costatis, fronte laciniatis; canali mediocri; apertura ovata, labio externo crenulato, unidentato; spira brevi, sutura profunda.—One variety of this species is darkly coloured between the varices. The tubercle between the varices is large and round.

123. NUTTALLI, f. 102, 3, 4, *Conrad*.—Testa *M. linguavervecinæ* similis, spira magis pyramidata, tuberculis interstitialibus medianis, lobatis; labio externo intus incrassato, quinque-dentato.—The *vervecina* is pyriform, with the greatest expansion of whorls and lobes above, not near the middle, as in this species.

124. UNICORNUS, f. 87, *Reeve.*—Testa *M. Nuttalli* similis, sed brevior, dente marginali valde producto, varicibus haud expansis.—Resembling the darker variety of *M. Nuttalli*, but broader, with no expansion of the varices.

125. MONOCEROS, f. 86, *Sowerby.*—Testa griseo-subviridis, spiraliter costata et striata, trapezoidea, spira pyramidata, anfractibus angulatis; inter varices bituberculatis, varicibus tribus crassis; apertura oblonga, labio externo intus incrassato quadridentato, margine unidentato, canali brevi.—Quite distinct from *M. Nuttalli*, having two rows of tubercles between the varices and scarcely any expansion of the varices.

126. COREANICUS, f. 131, *A. Adams.*—Testa ovata utrinque subacuminata, lævis trivaricosa fulva, castaneo evanide fasciata, varicibus extantibus lobatis, superne expansis elevatis, infra prope terminum canalis discontinuis; apertura ovata intus pallide rosea, labio externo intus incrassato, quinque-dentato, dente marginali prominenti.—Of an oval form, pyramidal at each end with lobed and slightly banded varices.

127. HEMITRIPTERUS, f. 109, *Lamarck.*—Testa angulatim pyriformis, pallide fulva, medio subcastanea, spiraliter costata, inter varices unituberculata; anfractibus angulatis; varicibus tribus crassis costatis, infra anguste fimbriatis; apertura subovata, intus trifasciata; spira brevi, canali attenuato.—More angular and inversely pyramidal than *M. lingua-vervecina.* The varices, particularly the last, are slightly fringed on the canal.

SECOND DIVISION. (Four or more varices.)

Sect. VI. Clavata, spinous or tubercular.

128. CORNUTUS, f. 166,* *Linnæus.*—Testa magna claviformis, superne ventricoso-subglobosa, spiraliter bicostata et interlirata, medio læviuscula, cinereo-fusca, interdum zonata, vel fulvo-lactea; varicibus septenis subcomplanatis spiniferis; spinis duobus longissimis, irregulariter arcuatim-recurvis, ad canalem una vel duabus; apertura postice canaliculata, labio interno antice laminatim producto, labio externo intus crenato margine biangulato, producto; spira brevissima, sutura profunda, canali longissimo.—There is no mistaking this long horned long channelled seven-variced shell.

129. BRANDARIS, f. 167, *Linnæus*.—Testa breviter subclaviformis ventricosa subscabrosa, spiraliter lirata, fulva lutescens, apertura subaurea; spira brevi acuminata, sutura profunda, anfractibus supra angulum tumidis, ultimo biangulato, spinis brevibus ad angulos varicorum armato; varicibus senis vel magis numerosis augustiusculis; apertura subtrigona, labio externo biangulato crenulato, infra angulum inferiorem lobato, subelongatim declivi, labio interno late expanso antice foliatim expanso; canali brevisculo subangulatim curvo, unispinoso, versus aperturam subexpanso.—This well-known common shell is rather variable in character.

130. TUMULOSUS, f. 168, *Sowerby*.—Testa claviformis, superne ventricosa, fulva-lutescens, solidiuscula recta, spiraliter scabroso-lirata; anfractibus octonis extantibus rotundis, pone excavatis; spira brevi, ultimo anfractu ventricoso, biangulato, spinis brevibus acutis rectis, ad angulos varicorum armato, canali longissimo, recto, ad varices oblique bispinoso.—The varices are rounded, prominent, and hollowed at the back; the spines are short, sharp and straight, three rows on the straight canal, in these respects differing from Sp. 166.*

131. PAZI, f. 208, *Crosse*.—Testa fusiformis albida, spiraliter striata, medio ventricosa; varicibus circa septenis, spinosis ad angulum, una canalifera elongata, infra una brevi, ad canalem una elongata, rectis, extantibus; spira producta, anfractibus subangulatis, ultimo ad canalem contracto; canali elongato versus terminum curvo.—The only specimen I have seen of this very remarkable form is from the collection of the late Mr. Taylor. It is now in the British Museum.

132. ZELANDICUS, f. 150, *Gray*.—Testa pallide cornea tenui subtrigono-fusiformis lævis; anfractibus quinis foliatim spinosis; spinis canaliferis acutis, superiori elongata, medianis parvis, antice plurimis arcuatim productis, peculiariter divergentibus, ad canalem nullis; spira acuminata, canali angusto, tortuo.—A very thin light shell with about five divergent spinose varices.

133. TÆNIATUS, f. 112, *Sowerby*.—Testa octo-varicosa, subventricosa, breviter fusiformis, medio ventricosa, pallide flavida, castaneo trifasciata; varicibus crassis, breviter frondosis, frondibus recurvis, acutis, superne medioque senis, ad caudam tribus; cauda breviuscula, tenui.—The eight varices have each six short recurved sharp fronds on the rounded

part of the whorls and three straighter on the canal, which is thin and short. Gulf of California.

134. OBTUSUS, f.173, *Sowerby*.—Testa octovaricosa, pyriformi, pallide cinerea, ad costas medio anfractuum castaneo maculata, inter varices spiraliter costata, varicibus crassis, tuberculatis, ultimo anfractu ad canalem contracto; canali breviusculo varicibus obtuse spinuloso; spira brevi, obtusa.—Formed like *M. humilis*, but not having the varices fringed in the same manner, and of a thicker substance.

135. HUMILIS, f. 142, *Broderip*.—Testa subpyriformis albido-fuscescens, spiraliter conspicue distanter lirata, interstitiis pone varices foveolatis; varicibus numerosis, duplicato-squamosis; apertura ovata, margine externo laqueato, canali breviusculo gradatim attenuato squamoso-bifrondoso; spira brevi, anfractibus supra liras planulatis.—Pear-shaped, with recurved fringed varices and strong ridges between.

136. NORRISII, f. 147, *Reeve*.—Testa breviter pyriformis, tenuis albida, spiraliter conspicue lirata; varicibus senis tenuiter ramoso-frondosis, frondibus castaneis, retrorsim crispatis, canali tenui recurvo brevi, superne triseriatim crispato; spira brevi, anfractibus rotundis.—This species might almost be described as a more refined form of *M. humilis*, with beautifully curled and delicately branched fronds on the varices.

137. CRISPUS, f. 164, *Broderip*.—Testa pyriformis, albido-grisea, spiraliter costata, multivaricosa; varicibus frondosis, frondis fuscis, trigonis, retrorso-crispatis; canali clauso, breviusculo; spira depressa, conica, anfractibus ad suturam depresso-excavatis.—This curious shell has the general form and some of the characters of the *scorpio* and *secundus* group.

Sect. VII. Pyriform, with pits at the suture.

138. OXYCANTHA, f. 145, *Broderip*.—Testa pyriformis, albido-fusca spiraliter distanter lirata, dense striata; varicibus septenis, latis, tumidis, ultimo anfractu fronte digitatis; spira brevi, anfractibus superne foveolatis; apertura ovata, margine laqueato.—The spines develope, in the later stages of growth, into long straight digits.

139. MELANAMATHOS, f. 144, *Gmelin*.—Testa globoso-pyriformis, spiraliter costata, varicibus octonis nigris spinosis,

ultimis elongato-digitatis; apertura parva, canali breviusculo clauso.—The later spines are developed into long black fingers.

140. ROTA, f. 140, *Sowerby*.—Testa ventricoso-subpyriformis alba, pallidissime violascens, lævigata; spira subpyramidali, anfractibus brevibus, rapide crescentibus ad suturam inter varices cavernosis; varicibus crassis, fronte lacineatis, supra suturam extensis, ultimi anfractus in digitis radiantibus quaternis, clavatis, expansis.—The fronds radiate on the varices of the last whorl like the spokes of a wheel.

141. SCORPIO, f. 141, *Linnæus*.—Testa pyriformis, gracilis, fulva-nigricans, quinquefariam varicosa, varicibus latis, fronte lacineatis frondosis, ad precedentem anfractum longe extensis; frondibus ultimæ varicis senis productis planulatis clavatis palmiferis; spira producta, anfractibus scalatis, inter varices ad suturam profunde foveolatis, canali elongato.—The whorls are much attenuated at the suture, where hollows are formed bridged by septa from the next whorl in succession. The flattened and lacineated fronds are curiously expanded at the ends.

142. VARICOSUS, f. 139, *Sowerby*.—Testa pyriformis albida spiraliter lirata; varicibus octonis, breviter frondosis latis, fronte laciniatis, ad suturam longe elevatis; frondis ultimæ varicis undecim, productis, latis, clavatis; spira brevinscula; anfractibus inter varices ad suturam profunde foveolatis.—More compactly formed than *M. scorpio*, with broader, laciniated varices, the fronds of the last being shorter, much more numerous.

143. SECUNDUS, f. 143, *Lamarck*.—Testa pyriformis, inter varices lævigata, alba, varicibus quinis fuscis, fimbriatis, ultimis breviter digitatis, canali lato, sutura profunde inter varices foveolato.—This might be almost described as a short-fronded *scorpio*, but the characters are sufficiently distinct. *M. varicosus* may be considered as intermediate, but also perfectly distinct. There is a *reversed*, and also *a white* specimen in the British Museum.

144. DIGITATUS, f. 148, *Sowerby*.—Testa pyriformis, spiraliter lirata, octo-varicosa, varicibus ad suturam extensis, breviter frondosis; frondibus fuscis, ultimæ varicis ad terminum breviter expansis; spira brevissima, ad suturam inter varices profunde digitatis.—The fronds are short and numerous, and on the later varices spread in a key-shaped fashion.

145. FENESTRATUS, f. 146, *Chemnitz.*—Testa fusiformis fulva quadrivaricosa, inter varices longitudinaliter plicata, spiraliter elevatim-costata, inter plicas foveis quadratis nigrescentibus profunde excavata; varicibus squamoso-frondosis, frondibus digitatis; digitis superne quaternis, infra duabus, ad canalem duobus, ad ultimum anfractum productis; spira pyramidata, anfractibus angulatis; ultimo anfractu infra contracto.—Cancellated by prominent ridges, varices and tubercular plaits, with deep, dark-coloured interstices. The species is most appropriately named the *windowed* murex.

146. GEMMA, f. 214, *Sowerby.*—Testa pyriformis lævis solida alba, superne nigro bifasciata, infra super liras nigro lineatis; varicibus quinis crassis, spiraliter prominente liratis, ad angulum tuberculatis, ad medium anfractus precedentis superne elevatis; spira conica, anfractibus ad suturam inter varices profundissime cavernosis, infra medium excavatis; apertura ovata, margine tenui, canali breviusculo, clauso, superne lato.—This exquisite shell, although closely connected with the group by the deep excavation of the whorls between the varices at the suture, and by general form, has no fronds, but raised ridges across the thick varices which are painted with reddish black.

147. FIMBRIATUS, f. 215, *A. Adams.*—Testa pyriformis; pallide fulva, sex-varicosa, ad suturam profunde foveolata; varicibus crassis margine reflexis, superne attenuatim elevatis, supra medium fronte subalatis, infra ad caudam quadridigitatis, apertura ovata, margine externo crenato, canali attenuatim declivi.—The varices are curiously lobed, and reflected with an angular winglike projection above, and four short digits below.

Sect. VIII. Varices more than three, branched, nodose, spinous, or winged.

148. ENDIVIA, f. 153, 154, *Lamarck.*—Testa globoso-fusiformis, spiraliter lirata et striata, alba, fusco leviter vel dense tincta, vel fusco fasciata; varicibus frequentibus, floride frondosis, frondibus crispatim recurvis; apertura subrotunda, frequenter rubro-marginata, margine externo angulatim dentato, spira brevi, anfractibus rotundatis, depressis; canali lato, breviusculo arcuato recurvo.—This

species is easily known by the roundly curved endive-like fronds.

149. SAXICOLA, f. 152, *Broderip.*—Testa *M. endiviæ* similis, sed anfractibus conspicue angulatis, varicibus plerumque magis frequentibus.—I cannot help thinking the decided angularity of *M. saxicola* is sufficient to distinguish this shell from *M. endivia.*

150. SAXATILIS, f. 177, *Linnæus.*—Testa magna, subtrigona, inflata, subrosacea, fulvo fasciata, sexfariam varicosa, scabroso striata; varicibus ramoso-frondosis, frondibus extantibus foliatis, apertura lata, subpyriformi, rubro trifasciata; canali lato, curvo, late aperto.—The aperture is wide and continues widely open down the curved canal. The early whorls of this species have the fronds very little developed, and we think that *M. hoplitus*, Fischer, is probably described from a specimen of this species, in which the later varices are not formed. This opinion is formed upon observation of the younger portion of a mature *M. saxatilis.*

151. RADIX, f. 170, *Gmelin.*—Testa magna, globosa, alba, inter varices lævis; varicibus ad decenis inter frondes subplanulatis, frondibus nigris, numerosis, dentato foliatis, crispatim recurvis; apertura magna alba, canali brevi, incurvo.—The figure represents the ordinary form, and will show the difference between it and *M. nigritus*, which latter I think there is some reason to adopt.

152. NIGRITUS, f. 169, *Philippi.*—Testa *M. radiei* similima, frondibus haud tantum dentato-foliaceis, haud crispatim recurvis, canali magis oblique elongato.—The fronds are stiffer and straighter than those of *M. radix.* The proposed third species, *M. ambiguus*, must be, I think, included with the old species. Then the species will stand thus —*M. radix* including *M. ambiguus*, with fronds leafy and dentated, much curled backwards; *M. nigritus* with fronds plain.

153. PRINCEPS, f. 175, 176, *Broderip.*—Testa turbinata crassa lævis alba, castaneo pone frondes fasciata; varicibus ad septenis, frondosis; frondibus erectis ad latera laqueato-dentatis.—It is scarcely a matter of doubt to me that the *M. nitidus* of Broderip is the young of this species. But I have seen many young shells of *M. radix* that it would be difficult to distinguish from *M. princeps.*

154. BRASSICA, f. 166, *Lamarck.*—Testa magna globosa,

fulva, fusco fasciata, transversim minutissime scabroso-striata, ad canalem umbilicata, varicibus septenis aut octonis, latis, rubro marginatis, margine dentatis, angulatim tuberculatis, tuberculo superiori ad angulum maximo, elevato, inferioribus plurimis foliatim spinosis; apertura maxima, intus aurea ad margines vivide rubra, margine externo dentato; canali lato, subrecurvo.

155. ROSARIUM, f. 156, *Chemnitz.*—Testa subglobosa, crassa, rugosa, spiraliter lirata, inter varices plicato-tuberculata, fulvo-rubescens, fusco interruptim trifasciata, fasciis ad varices nigris; aperturæ et varicorum marginibus rubris; varicibus octonis, crassis, conspicue tuberculatis, antice sublaminatim frondosis.—This well known species must be distinguished first from *M. bifasciatus*, f. 155, which is a more turbinate and differently coloured shell, and then from *M. turbinatus*, f. 155, which is lighter and more fusiform.

156. TURBINATUS, f. 185, *Lamarck.*—Testa quam *M. rosarium* magis fusiformis, tenuior delicate rosacea, fusco super varices fasciata, liris acutis.—Pronounced by Kiener, who had the Lamarckian collection at command, to be the true shell of Lamarck. Authority *must* go some little way in these matters, otherwise I should have been hardly disposed to separate this form from *M. rosarium*, which, however, is more light and fusiform.

157. BIFASCIATUS, f. 155, *Sowerby.*—Testa globoso-turbinata griseo-fulvescens, fusco-grisescenti bifasciata (fascia parva indistincta) spiraliter obtuse lirata; varicibus octonis obtuse tuberculatis rotundis, antice vix exfoliatis; canali lato, brevi; spira depresso-conica, anfractibus superne angulatis.—Rather more turbinated than *M. rosarium* and altogether different in appearance, although the differences in form and sculpture are difficult to define.

158. SPINOSUS, f. 180, 181, *A. Adams.*—Testa late turbinata ventricosa, alba vel fusca, spiraliter scabroso-lirata et striata; varicibus septenis vel octonis, crassis, tuberculatis angulatis, ad canalem spinis obtusis duabus vel una armatis, apertura magna, margine externo crenulato antice unidentato, superne unispinoso; canali brevi, lato.—In the Conch. Ill. I gave this as my identification of *M. turbinatus* of Lamarck, and should have continued to support that view but for the

statement that *Kiener* had the identical shell of that author in his possession.

159. SPINICOSTATUS, f. 171, *Valenciennes.*—Testa pyriformis, superne ventricosa, alba-fulvescens, spiraliter lirata, liris inæqualibus granosis, fulvo articulatis, varicibus senis vel septenis, foliatim spinosis, ad canalem liberis; spinis acutis curvis apertis, tribus superioribus et duobus inferioribus elongatis; canali subelongato spinifero superne lato; spira breviuscula.—The specimen figured is rather young. The spines often grow much larger or thicker, more turbinate and less spinose.

160. REGIUS, f. 165, *Wood.*—Testa subelongato-globosa, ventricosa, ad canalem umbilicata, spiraliter corrugato-striata, alba-fuscescens, roseo tincta, inter varices nigro lineata, supra suturam nigra; varicibus foliatim spinosis, spinis trigonis retrorsis fornicatis; apertura magna, labio interno late expanso vivide rubro, nigro late picto, labio externo rubro, margine plicato; canali extus corrugato.—Most richly coloured and with curiously vaulted broad spines on the varices.

161. IMPERIALIS, f. 161, 205, *Swainson.*—Testa solida pallide fulva, subglobosa, spiraliter striata et lirata, inter varices tuberculatim uni- aut bi-plicato, ad canalem excavata; varicibus quaternis crassis, solidissime tuberculatis, tuberculis ad angulum subcuneatis; apertura aurea vel rosacea, labio columellari laminatim producto, crenulata; labio externo crenulato et dentato; canali brevi, lato; spira breviuscula conica, anfractibus angulatis.—The variety represented at fig. 205, is darkly spotted like *M. rosarium.* Several specimens are in the British Museum.

162. BICOLOR, f. 163, *Valenciennes.*—Testa globosa, inflata, subelongata, pallide rosea lutescens, tenuis, spiraliter minute striata, inter varices plicatim unituberculata; varicibus quinis, solidis, medio solidissime tuberculosis, margine expanso dentato, superne spina foliacea ad angulum producta, inferne et ad canalem plurimis similibus; apertura magna rosea, labio interno vivide roseo, late expanso, labio externo subexpanso, margine denticulato.—A curious variety of this species is figured in the Conchological Illustrations, with a narrow red rim all round the aperture.

163. TRUNCULUS, f. 186, 187, *Linnæus.*—Testa subfusiformis subventricosa scabra, purpureo-fusca alboquefasciata,

spiraliter scabroso-lirata et interstriata, inter varices interdum plana, interdum tuberculata, varicibus paucis vel numerosis, ad angulum plerumque obtuse nodosis, interdum spinosis, ad canalem liberis; anfractibus uniangulatis vel obtuse biangulatis; canali brevi latissimo, pone concavo.—The figures represent the extreme variations of this variable Mediterranean shell.

164. YOLDII, f. 210, *Mörch.*—Testa *M. trunculo* similis, sed crassissima, brevi, angulata ad angulos præcipue tuberculata.—It is doubtful whether this very thick and angular shell may not be a form of *M. trunculus.*

165. BOURGEOISI, f. 184, *Crosse.*—Testa rugosa, breviter subfusiformis, fulva, ad varices dense fuscata, spiraliter costata, et striata inter varices plicatim unituberculata, varicibus irregularibus, quaternis aut quinis crassis, breviter frondosis, frondibus dentato-foliaceis, una ad angulum magis conspicuis; spira producta, anfractibus angulatis; apertura subrotunda, alba, margine externo laqueato, intus dentato, canali brevissimo lato, bifrondoso.—First known as a fossil, but now plentifully collected in a recent state; more fusiform and frondose than *M. angularis.*

166. VARIUS, f. 182, 183, *Sowerby.*—Testa angulatim fusiformis, solida, scabra, fulva, spiraliter rubro-lineata aut articulata, granoso-lirata, interdum inter varices tuberculata, varicibus irregularibus, plus minusve frondosis, spira moderate producta, anfractibus angulatis, interdum ultimo biangulato, apertura subrotunda, canali lato, spinoso, brevi, superne excavato.—The two figures present the extreme forms of a species which greatly varies.

167. STAINFORTHII, f. 158, *Reeve.*—Testa ovato-globosa, albescens, spiraliter lirata; varicibus octonis aut novenis rotundis liratim frondosis, frondibus squamosis angustissimis creberrimis, fusco-nigricantibus, canali lato, spira acuta, anfractibus rotundis infra ad canalem umbilicatis; apertura rotunda aurea, labio externo intus crenulato.—The fronds are squamose, narrow and close, giving the varices a beautiful frizzled appearance.

168. CUSPIDATUS, f. 203, *Sowerby.*—Testa gracile fusiformis, utrinque acuminata, alba, varicibus canalique fuscis, spiraliter subdistante lirata, varicibus septenis, frondibus aculeatis, paucis, superiori acutissima; spira subproducta, anfractibus

prope suturam subexcavatis; apertura subovata, margine externo intus dentato, extus crenato; canali subattenuato, acuto.—The varices are ornamented with eight sharp brown spikes and minute intermediates. There is a row of teeth within the outer lip.

169. OCTOGONUS, f. 261, *Quoy.*—Testa fusiformis, fulva, spiraliter imbricato-liratis, liris nigrescentibus ad varices subspinosis; spira elongata, anfractibus subrotundis; apertura subovata; canali latiusculo, fere clauso, pone subumbilicato.—Almost too fusiform for a murex; yet the varices are distinct edges of former apertures and the canal plate is brought forward to meet the outer lip.

170. DIPSACUS, f. 260, *Broderip.*—Testa fusiformis angusta, medio subventricosa, albida, fusco irregulariter picta, spiraliter concinne lirata, varicibus frequentibus, ad canalem serratis subfoliaceis frondibus angustibus, brevibus, acutis, crispatis.—The varices, although very numerous, are very distinct, with short and narrow curled fronds. The disc of the canal does not quite reach the outer lip.

171. MEGACERUS, f. 172, *Lamarck.*—Testa fusiformis, crassa, rugosa, fusca, spiraliter rugoso-costata, inter varices tuberculo magno munita; varicibus quaternis vel quinis, frondibus quinis, et intermediis plurimis parvis, solidis, lateraliter dentato-laqueatis armatis, una ad angulum longiori, elevata; aperturæ margine laqueato et crenato; canali lato, undulato, squamato.—A rough brown shell with four or five varices, remarkable for their size and straightness, particularly the principal one at the angle of the aperture.

171a. QUADRIFRONS, *Lamarck*, f. 216*.—From one or two specimens this has been set aside as an accidentally four variced variety of *M. capucinus*. Perfectly regular specimens from Mr. Taylor's collection having now come to hand, showing not only a regular sequence of four varices but also a bolder sculpture, we must revert to our original opinion and regard it as a distinct species. It is the *castaneus* of the Con. Ill. and the *lignarius* of the Brit. Mus.

172. ANGULARIS, f. 179, *Lamarck.*—Testa breviter fusiformis, ustulato-fusca, spiraliter distanter costata et interstriata, inter varices tuberculo magno pliciformi munita, varicibus quaternis aut quinis, crassis, tuberculosis infra et ad aperturam brevissime frondosis; apertura alba, margine laqueato

intus crenato, spira breviuscula, anfractibus angulatis.—The varices are fewer than in *M. liratus*, with a large tubercle in most cases, between.

173. LIRATUS, f. 173, *A. Adams*.—Testa rugosa solida quadrigona, fusca, spiraliter lirata, varicibus octonis, nodulosis, castaneis, antice vix frondosis; spira pyramidata, elevata, anfractibus obtuse angulatis; apertura subovata, margine externo crenulato et dentato; canali brevissimo, lato.—The varices are numerous, solid, and plain, excepting two or three very small spinose fronds near the base; the angle falls below the middle of the shell, making the spire pyramidal and the canal very short.

174. ADAMSI, f. 234, *Sowerby*.—Testa angulata alba solida brevis ventricosa, spiraliter leviter lirata; varicibus octonis crassis læviusculis, ad canalem subdigitatis, ad marginem disci imbricatis; apertura magna, pyriformi canali breviusculo, lamina discoidea latiusculo.—Smoother than the others of this group.

175. TENUIS, f. 174, *Sowerby*.—Testa breviter fusiformis, tenuis, læviuscula, pallide fulva castaneo fasciata, spiraliter lirata, inter varices plicatim unituberculata; spira pyramidata, acuminata, anfractibus angulatis; varicibus quaternis tuberculatis, antice subfrondosis; canali brevi, lato.—This pretty little species of which I have only seen one specimen, at first sight reminds one of *M. vibex*, but differs from that doubtful murex in having regular varices distinguishable from the intermediate tubercles, and a nearly closed canal.

176. PUDICUS, f. 243, *A. Adams*.—Testa brevis, fere alba, scabra ventricosa angulata, spiraliter lirata, interstriata, varicibus senis crassis rotundis approximatis, ad canalem imbricatis, spira pyramidata, anfractibus angulatis, supra angulum subplanatis, apertura angulata, labio externo crenato, intus lirato; canali brevi, lato, lamina discoidea excavata.—A short angular shell without fronds on its varices.

177. ASPER, f. 244, *A. Adams*.—Testa alba, scabrosa, ventricosa, brevis, spiraliter serrato-lirata; anfractibus senis, robustis, aculeatim frondosis, ad canalem subexfoliatis, spira breviuscula, anfractibus superne angulatis, apertura subrotunda, margine externo serrato, intus subdentato, canali brevissimo, lato, lamina discoidea excavata.—Resembling *M. pudicus*, but more frondose.

178. SOLIDUS, f. 246, *A. Adams.*—Testa quam *M. pudicus* brevior, crassior, varicibus antice subfrondosis, ad canalem late imbricatis; canali brevi disco latissimo, excavato.—Very short and thick with rudimental fronds on the lower part of the varices.

179. JAMAICENSIS, f. 223, *Sowerby.*—Testa breviter fusiformis, medio subglobosa, fusco-violascens, spiraliter inciso-lirata, liris approximatis, interstitiis cancellatis, varicibus octonis distantibus, angustis; spira breviuscula, anfractibus rotundis; apertura parva, labio externo lato, rotundo, bifasciato, canali brevi, recto, lato, extus imbricato.—Of a dull colour, with narrow varices separated by deep cancellated grooves.

180. INTERSERRATUS, f. 204, *Sowerby.*—Testa parva, subfusiformis pallide griseo-alba, distanter spiraliter lirata, inter liras squamoso-serrata; varicibus septenis, brevissime frondosis, ad angulum spira breviuscula, hamata armatis; canali subproducto; spira breviuscula, anfractibus subplanulatis, supra angulum planulatis; apertura subrotunda.—Although small and possibly immature, there is a distinctive character about this shell. The varices are very short fronded except at the angle where one is produced into a hook; and the spiral ridges have their interstices serrated with small scales.

181. PUMILUS, f. 200, *A. Adams.*—Testa subfusiformis, brevis, aurantia, vel subrosea, spiraliter scabroso-lirata, liris ad varices squamoso-serratis, varicibus senis crassis superne subangulatis; apertura rotunda, canali brevi, lato ad terminum valde retrorso; spira producta, acuminata, anfractibus senis, obtuse angulatis.—A pretty pink and orange species beautifully sculptured with serrated scales on spiral ridges. The sculpture of the thick varices resembles that of *M. incisus*, which is a shell much more globose.

182. MUNDUS, f. 242, *Reeve.*—Testa breviter subfusiformis, albida, crassa, spiraliter obtuse lirata; varicibus quinis prominentibus lacineatis, laciniis et interstitiis minute cancellatis; spira pyramidata, anfractibus angulatis supra angulum et infra medium planis; canali brevi.—The varices on the body whorl are prominent in the middle and plain or lost above the angle and towards the canal.

183. GRAVIDUS, f. 222, *Hinds.*—Testa pyriformis, pallide fulva, fusco obscure fasciata, spiraliter dense lirata interstitiis

foveolatis, varicibus quinis, prominentibus, ad canalem liberis, trispinosis, spira acuminata, anfractibus rotundis, ultimo globoso; apertura rotunda parva, canali elongato, curvo.—Like *M. cirrosus* in sculpture, with longer spire and long curved canal which is free at the end of each varix on the channel-disk.

184. CIRROSUS, f. 221, *Hinds.*—Testa parva, ventricoso-subtrigona, fulva, spiraliter costata; varicibus senis, spinis tubulosis acutis recurvis, fronte canaliculatis, ornatis, ultima lacineatim producta, spira brevi, anfractibus angulatis, ad suturam excavatis, infra ad canalem spinosis, canali acuminato.—Strongly ribbed; and the last varix showing a beautiful radiation of channelled ridges in front, making a curved upturned point at the angles.

185. INCISUS, f. 224, *Broderip.*—Testa fusca, subglobosa, dense lirata, interstitiis minute foveolatis, varicibus septenis magnis rotundis, ad canalem breviter liberis, ultimo ad aperturam antice subspinosis, apertura rotunda parva, margine crenulato, spira canalique brevibus.—The close, deeply cut cross ribs are delicately sculptured in the interstices.

186. CASTA, f. 225, *A. Adams.* Testa *M. inciso* similima, sed purissime alba, et magis globosa.—Shorter than *M. incisus* and quite white.

187. TETRAGONUS, f. 228, *Broderip.*—Testa albida, inter varices subviolacea, intus violacea; anfractibus quaternis crassicostatis, interstitiis laciniatim foveolatis, pone profunde excavatis et foveolatis, usque ad apicem confluentibus ad canalis marginem breviter liberis, spira pyramidata producta, apertura violacea, ovato-rotunda, margine crenulato; canali brevi retrorsim elevato.—The latticed varices follow from whorl to whorl so confluently as to form four oblique walls up the spire.

188. BREVICULUS, f. 229, *Sowerby.*—Testa quam *M. tetragonus* brevior, crassior, spira brevi, varicibus quinis, crassissimis, angulatis, ad spiram interruptis; canali latissimo, retrorsim elevatissimo.—A much shorter and thicker shell than *M. tetragonus* and the varices five in number, not forming an interrupted sequence.

189. KIENERI, f. 197, *Reeve.*—Testa parva angusta turrita, pallide fulva, spiraliter striata, multivaricosa; apertura subquadrata, labio externo intus crenulato, extus antice

lamina parva fimbriato; canali brevi, aperto, angusto.—It is rather doubtful whether the longitudinal ribs or plaits be real varices, consequently whether the species belongs to the genus.

190. ALVEATUS, f. 232, *Kiener.*—Testa albida oblongo-pyramidata, liris validis et varicibus septenis profunde cancellata; spira elongata, anfractibus subangulatis: apertura parva, margine externo lato fimbriato; canali brevi lato margine imbricato.—A broadly and deeply cancellated shell of a pyramidal form, with the last varix at the aperture broadly fringed.

191. EROSUS, f. 231, *Broderip.*—Testa oblongo-pyramidata, violacea, spiraliter sulcata, inter sulcos cancellata, spira elongata, anfractibus angulatis irregulariter varicosis, ultimo valide bivaricoso, superne ad suturam et infra medium excavato, plicis septiformibus foveolato; varicibus crassis, tuberculatis; apertura parva, canali brevi, lato.—The last whorl has two varices like a *Ranella*, but the upper whorls have more.

192. CYCLOSTOMA, f. 227, *Sowerby.*—Testa breviter-subfusiformis, albida intus violacea, spiraliter costata et interlaciniata; varicibus senis crassis, fimbriato-cancellatis superne subangulatis; spira subproducta, anfractibus rotundo-angulatis, apertura ovata, margine externo antice crenato, canali breviusculo, rectiusculo.—More fusiform than *M. breviculus*, with a more produced and straight canal. The sculpture is neither so deep nor so coarse.

192 *. NUCULA, f. 227, *Reeve.*—Testa quam *M. cyclostoma* magis ovata, magis angusta, canali retrorsim elevato.—After much hesitation I have concluded to retain this as a separate species. It is of a much more oblong-ovate form and has the canal recurved towards the back.

193. CROSSEI, f. 230, *Lienard.*—Testa brevis, subglobosa, alba, lævis, inter varices late et prominente bicostata; varicibus senis prominentibus crassissimis, interstitiis profunde foveolatis; apertura subovata violacea; spira brevi, anfractibus quaternis, prominentibus, ad canalem contractis; canali brevi, lamina discoidea excavata.—An extremely short species with two very thick spiral ribs between the varices, which are much swollen, having deep pits behind.

194. INERMIS, f. 235, *Sowerby.*—Testa fusiformis alba,

spiraliter obsolete lirata, varicibus senis augustis, annuliformibus, nodosis, ad canalem imbricatis; canali longiusculo, curvo, fere clauso; spira pyramidata, anfractibus rotundis, apertura majuscula, margine externo intus dentato.—The distinct round varices and the narrow plate partly covering the canal may be supposed to give this fusiform shell a place among the murices.

195. DISTINCTUS, f. 236, *Christophorus*.—Testa *M. inermi* similima, brevior, varicibus septenis magis nodosis, ad canalem magis exfoliatis.—Shorter, more nodose, and at the canal more exfoliated than *M. inermis*.

196. BALTEATUS, f. 237, *Beck*.—Testa angulatim ovata, roseo-fulva tincta, frondibus fuscis, anfractibus superne angulatis, infra angulum spiraliter serrato-costatis, varicibus septenis, frondosis, ad canalem liberis; frondibus suberectis, ramosis; apertura parva canali lato, acuminato.—Strongly and distantly ribbed, the ribs being serrated and the fronds of the varices delicately branched.

197. LAPPA, f. 238, *Broderip*.—Testa subfusiformis utrinque acuminata, albida, fulvo subfasciata spiraliter valide costata, inter costas striata, varicibus senis latis angulatis approximatis, frondibus radiantibus aculeatis, apertura parva, margine inciso-crenato.—The angular varices occupy the whole surface of the whorls, the rise of each commencing from the front margin of the preceding. This was observed by Hinds in describing his *M. radicatus* which is possibly the same species.

198. RADICATUS, f. 239, *Hinds*.—Testa *M. lappæ* similima, augustior.—From M. Hind's description and the published figures I am led to believe that the later species, *M. radicatus*, is but a narrow form of *M. lappa*.

199. EXIGUUS, f. 240, *Broderip*.—Testa parva, subtrigona, utrinque acuminata, fusco-purpurascens spiraliter costata; anfractibus angulatis, supra angulum subplanulatis, varicibus septenis angustis subspinoso-frondosis, ultima ad aperturam laciniata, frondibus canaliferis, ad terminos duplicatim expansis.—A pretty little species in which the fronds of the varices, particularly the last, are doubled at the ends. Both extremities are sharply acuminated.

200. BRAZIERI, f. 226, *Angas*.—Testa parva, pallide rufescens, breviter fusiformis, spiraliter lirata, quinque-varicosa,

varicibus breviter frondosis, frondibus numerosis parvis subdilatatis.—A small dull-coloured species, with short fronds which are a little dilated at the extremities.

201. RUSTICUS, f. 241, *Reeve.*—Testa pyramidata albida violaceo-frondosa, spiraliter lirata, varicibus senis crassis, frondibus aculeatis, radiatis, spira elongata, anfractibus angulatis, apertura parva, canali brevi lato, clauso, margine serrato.—A pyramidal shell with narrow dark-coloured fronds.

201a. VITELLUS, f. 249, *Brod.*—Testa fusiformis, subangulata, utrinque acuminata, scabra, alba, fusco-nigrescenti super costas alternatis lineata, spiraliter costata, costis acutis, ad varices breviter spinosis; varicibus septenis, fronte imbricatis; spira pyramidata anfractibus angulatis, ad canalem breviter imbricatis; apertura ovata, margine externo crenato.—In some specimens, the spiral ribs are scarcely developed into spines, and the shell appears much less like a *murex*. *M. lepidus*, Reeve, seems to present no characters which should cause it to be regarded as distinct from this species, the dark lines only being substituted by irregular spots.

201b. DUBIUS, f. 250, *Sowerby.*—Testa fumoso-fusca angulatim subfusiformis, utrinque acuminata, spiraliter striata; varicibus septenis brevibus angulatis, frondibus subdistantibus spinoso-tuberculatis; apertura subtrigona, intus marginem externum quinquedentata, canali fere clauso.—A darkly coloured shell whose place in the genus is, as the name is intended to imply, at least doubtful. The varices are, however, often distinct, and the laminar plate over the canal is present, although narrow.

201c. HEXAGONUS, f. 257, *Lamarck.*—Testa elongato-fusiformis, pallide lutescens, spiraliter distanter costata; varicibus senis, angulatis, ultimi anfractus spinoso-digitatis, inter digitos breviter spinosis, apertura subpyriformis, elongata, margine externo intus dentato, canali elongato, acuminato, varices spinis purpureis.—The spines, which are only developed in the later varices are sometimes brown and sometimes delicate purple.

201d. CRISTATUS, f. 258, *Brocchi.*—Testa angulatim fusiformis, fulva vel rubescens, spiraliter striata, subdistanter lirata; varicibus octonis, frondibus angulatim exfoliatis; apertura angulata, margine externo intus denticulato.—The fronds being exfoliated in the later stages of growth, I am

inclined to admit *cristatus* in the list of murices. I do not, however, agree with the late Mr. Reeve that *M. Blainvillei* is either possibly the same or very nearly related.

201e. BLAINVILLEI, f. 262, *Payraudeau*.—Testa *M. cristati* similis angustior, pallide fulva, inter varices lævis, varicibus nodulosis, haud frondosis.—Although this has been regarded as a variety of *M. cristatus*, it is very much less like a murex, the so-called varices being more smooth and tubercular.

202. LUGUBRIS, f. 157, *Broderip*.—Testa breviter subtrigona, septem-varicosa, spiraliter lirata, cinereo-fusca; varicibus senis crassis, fronte lacineatis, ad angulum subfalcatis; spira brevi, anfractibus angulatis, canali brevi; apertura magna, intus purpurea.—It appears to belong to the same group with *M. erycina*, &c.

203. HAMATUS, f. 159, *Hinds*.—Testa angulatim subovata, fulva, quinque- aut sex-varicosa, varicibus angulatis trilobatis, loba superiori retroso-hamata, apertura oblonga alba, spira acuminata, canali producto, obliquo.—In this species, which is remarkable for the hooked character of the upper lobe of the varices, a marginal tooth is present.

204. PERITUS, f. 219, *Hinds*.—Testa parva, subpyriformis, pallide fulva, rubro tincta et lineata, spiraliter costata, varicibus senis, fronte lacineatis, spinis brevissimis, superiori ad angulum uncinato; spira brevi, anfractibus angulatis, supra angulum plano-depressis, canali elongato arcuato acutissimo. —Remarkable for the hooked spines at the angle of the varices, and resembling *hamatus*, but more pyriform and attenuated and without a tooth at the margin of the aperture.

205. HILDAGOI, f. 201, *Crosse*.—Testa trigono-fusiformis tenuiuscula albida, spiraliter costata, lævis; varicibus ad octonis extantibus subfoliaceis, spinis ad angulum una elongata, infra quaternis, anticis laciniatis, ad canalem tribus spinosis armatis, ultima expansa, quinquefariam canaliculata, interstitiis squamoso-laciniatis; canali elongato curvo, spira breviuscula, anfractibus angulatis.—At first sight similar to Reeve's *M. territus*, but quite distinct, the latter being a three-varied shell.

206. FALCATUS, f. 149, *Sowerby*.—Testa pallide fulva, leviter fusco fasciata, tenuis lævis trigona; varicibus

inæqualibus, late alatis, superne late elevatis et falcatis, radiatim canaliferis, ad margine undulatim inflexis, infra medium canali terminis; spira breviuscula, versus apicem multivaricosa.—There are specimens in the British Museum more finely developed than those originally drawn. I cannot regard *M. aduncus* as the same species.

207. ADUNCUS, f. 216, *Sowb.*—Testa pallida, fusco late fasciata, breviter trigona, spiraliter costata; varicibus late alatis laminatim extantibus, supra angulum breviter uncinatis, replicatis, ad canalem coarctatis, anfractuum superiorum numerosis, brevioribus, spira brevi; canali conspicue lateraliter recurvo.—The shortness of this shell, the cross-ribs, and wide lateral expansion of the wing-like varices will not permit me to regard it, with Reeve, as a mere modification of *M. falcatus*. Besides Mr. Norris's specimen originally figured, there is a rather immature one in the British Museum.

Sect. IX. Varices irregular.

208. ERINACEUS, f. 202, *Linnæus.*—Testa subovata, rufo-fulva vel adusta, spiraliter costata, varicibus numerosis aut raris, inæqualibus, fronte lacineatis, lobatis, radiatim minute foveolatis; apertura subtrigona, margine dentato, canali lateraliter subrecurvo.—The varices in this species are of extremely variable and irregular growth.

209. TOROSUS, f. 195, *Lamarck.*—Testa breviter subtrigona, fumoso-fusca, solida, spiraliter costata, costis quinis, crassis, latis, prominentibus, interstitialibus parvis, squamoso-crenatis, varicibus irregularibus ad costas exfoliatis; apertura majuscula, margine externo undulatim crenato, intus denticulato, spira brevi, anfractibus angulatis, superne excavatis.—This species seems to have some affinity with *M. erinaceus*. Reeve and others incline to the opinion that it may be only a distorted form of it.

210. CALIGINOSUS, f. 193, *Reeve.*—Testa subtrigona, utrinque acuminata, fusca lævis, spiraliter costata, costis latis, planatis, interstitiis angustis, profundis; varicibus senis, ad costas exfoliatis, ad angulum anfractuum productis; spira acuminata; anfractibus angulatis, supra angulum plano-depressis, ad canalem coarctatis; canali lateraliter recurvo.—This species, like *M. torulosus*, is probably an ally of *M. erinaceus*, and may even be one of its erratic forms.

211. CALIFORNICUS, f. 88, 220, *Hinds.*—Testa trigona fusca vel fere alba, scabra, spiraliter distanter crenulatim costata, varicibus tribus lacineatis, expansis, margine digitis breviusculis recurvis armata, ad angulum anfractuum angulatim producta et elevata; spira producta, anfractibus angulatis, inter varices unituberculatis; apertura majuscula, ovata, margine crenato; canali attenuato, subrecurvo.—Not unlike some varieties of *M. erycinus*, but regularly trivaricose. The fronts of the varices present a beautiful lace-like appearance.

212. RORIFLUUS, f. 198, *Reeve.*—Testa anguste ovata, inter varices tenuiter spiraliter costata, dense fusca, varicibus quaternis, angustis, albis; spira producta, acuminata; canali breviusculo, apertura majuscula, margine labii externi intus crasso, dentato, dente marginali acutissimo.—A narrower and more fusiform shell than *Monachus*, with very narrow white varices.

213. MONACHUS, f. 132, *A. Adams.*—Testa subovata quadrivaricosa irregularis lævis subviridis, varicibus undulatis albis, castaneo fasciatis, spira et canali brevibus, apertura maxima purpurea ovata, margine undato, dente marginali parvo, labio interno purpureo.—Having four or five somewhat irregular varices; yet somewhat resembling the three varied *C. Coreanicus*. The body whorl and aperture are very large and long in proportion to the spine and canal.

214. TALIENWANENSIS, f. 247, 248, *A. Adams.*—Testa angulatim et breviter subfusiformis, crassa, albido-grisescens, castaneo tincta et fasciata, spiraliter lirata, inter varices inconspicue cancellata; varicibus irregularibus, valde inæqualibus majoribus exfoliatis, fronte laciniatis; canali brevi, apertura subovata, labio externo intus denticulato, anfractibus angulatis, superioribus, interdum regulariter cancellatis.—The differences between this species and *M. crassus* described at the same time by the same author can only be regarded as varietal in shells of such extremely irregular growth.

215. ENDERMONIS, f. 213, *Smith.*—Testa subovata, griseo-albida solidiuscula, spiraliter costata ventricosa; varicibus septenis crassis, tuberculatis ad angulum anfractuum desinentibus infra medium subinterruptis, ad canalem imbricatis; anfractibus superne angulatis, supra angulum planis, ultimo versus canalem subattenuato; apertura ovata, intus fusca, margine externo conspicue unidentato; canali lato,

oblique subcurvo.—When young the varices are more open and angular.

216. INORNATUS, f. 234, *Reclus.*—Testa ovata, albido-fuscescens, castaneo pallide trifasciata, planata; varicibus senis ad septenis, contabulatis, subflexuosis, irregularibus; apertura ovata, pallide violacea, margine intus denticulato; canali brevi, clauso; spira brevi, anfractibus superioribus.—I have not seen this shell, which appears from the figure to be of very irregular growth.

217. ACANTHOPHORUS, f. 151, *A. Adams.*—Testa trigona quinque-varicosa griseo-subviridis, spiraliter lirata, varicibus crassis, fronte sublaciniatis, superne acute angulatis, spira acuta anfractibus angulatis, versus suturam subexcavatis, apertura trigona, margine externo crenato, canali attenuato, torto.—The name *endermonensis*, has been applied to some small and undeveloped specimens.

Sect. X. Varices indistinct, canals fistulose.

218. FOVEOLATUS, f. 253, *Hinds.*—Testa elongato-fusiformis fusca, intus fasciata, crassa, spiraliter lirata, inter liras minute foveolatis; costis subvariciformibus octonis; prominentibus, superne acute angulatis; spira acuminata, canali elongato, attenuato, recurvo; apertura subpyriformi, labio externo intus incrassato.—A very singularly formed shell which might with almost equal propriety be placed here or in the genus Fusus.

219. FUSIFORMIS, f. 207, *A. Adams.*—Testa elongato-fusiformis, superne inferneque pyramidata, fusca; anfractibus octonis subnoduliferis, interstitiis valide spiraliter liratis; apertura pyriformi, labio externo laqueato, intus incrassato, denticulato; canale producto, feri clauso.

220. EDWARDSI, f. 252, *Menke.*—Testa brevinscula, spiraliter subacute costata, griseo-fulva, varicibus paucis, irregularibus, subexpansis, tuberculis intermediis angulatis magnis, apertura ovata, subpurpurea, labio externo intus quinque dentato; canali brevi subrecurvo, spira acuminata anfractibus angulatis.—This is the typical species of an uncertain group, in which the true varices, occurring at irregular intervals, are not very distinct from the interstitial tubercles, but the canal is strictly closed.

221. Bæticus, f. 259, *Reeve*.—Testa fusiformis, purpureo-fusca, spiraliter lirata; spira producta, anfractibus frequenter prominente tuberculatis, angulatis ultimo ad aperturam univaricoso; apertura ovata majuscula, labio externo tenui, crenulato, intus leviter dentato purpureo.—Altogether a coarser and more fusiform shell than *M. Edwardsi*.

222. gracillimus, (no fig.), *Stears*.—Testa quam *M. corallinus* varicibus aut plicis magis numerosis, spira acuminata, versus apicem attenuata.—This Californian species is so like our British and Mediterranean one as to be scarcely distinguishable. The outline is, however, more attenuated towards the apex.

223. corallinus, f. 251, *Scacchi*.—Testa griseo-fulva, *M. Edwardsii* similis sed tenuilirata, angustior, anfractibus superioribus tuberculatis, vix varicosis, ultimo ad aperturam late univaricoso; apertura parva.—Narrower than *M. Edwardsii*, with the varices on the upper whorls still less distinguishable from the mere tubercles.

224. Pettardi, f. 255, *Brazier*.—Testa fulva anguste fusiformis, varicibus numerosis, noduliferis et liris interstitialibus cancellata; spira elongata; anfractibus rotundis; apertura parva ovata, margine crenulato, intus castaneo; canali producto, semiclauso.—A little brown cancellated shell, belonging probably to the same group as *corallinus*.

225. pistacea, f. 256, *Reeve*.—Testa fusiformis, angusta, spiraliter striata, fusca, longitudinaliter costato-tuberculata, spira elongata, anfractibus subtus suturam subcanaliculatis, ultimo ad aperturam rotunde univaricoso.—Distinguished from the others of this group by a sort of groove near the suture of the whorls.

226. Badius, f. 254, *Reeve*.—Testa fusca fusiformis, tenuiter lirata, tuberculato-costata; spira elongata, acuminata; anfractibus subrotundis, ultimo ad aperturam univaricoso.—From *Bæticus* to this species we have a regular gradation of form and sculpture.

227. pleurotomoides, f. 206, *Reeve*.—Testa pyriformis, pallide fulva, tenuiter lirata; octo-varicosa, anfractibus superne angulosis; spira brevi, acuminata, apertura pyriformi, labio externo ad suturam sinuatim emarginato, intus denticulato, canali oblongo.—The generic position of this shell is subject to doubt, but the ribs somewhat resemble varices,

and the canal is partly closed; the chief peculiarity is, however, in the pleurotoma-like notch at the upper part of the mouth.

228. FASCIATUS, f. 178, *Sowb.*—Testa solida, subovata, breviter fusiformis, spiraliter lirata, inter liras castaneo fasciata, longitudiualiter octo-costata; costis subvariciformibus; apertura ovata, cauali brevi, clauso.—The canal is closed in the same way as in *Edwardsii* and others, but the ribs in very few cases have the character of true varices.

229. MACULATUS, f. 263, *Reeve.*—Testa pallide fulva trapezoidea, tuberculato-varicosa, spiraliter lirata inter varices prope suturam maculata; spira producta, acuminata, anfractibus subangulosis; apertura subpyriformis, margine crenulato. —A doubtful form for Murex, but so resembling *fasciatus* as to require a place in the same group.

230. PLANILIRATUS, f. 264, *Hinds.*—Testa breviter subfusiformis fulva, spiraliter lirata, quinquefariam varicosa; liris lacineatis, planatis, varicibus prominentibus rotundis; apertura ovata, margine crenulato, canali fere clauso.—This shell seems to belong to the same group as *M. fasciatus*, but represents the generic characters of Murex very imperfectly.

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The following have not been met with or identified. They are not all Murices:—Aurisiacus, armatus, Belcheri, costatus, costularis, Cumingii, decollatus, erythræus, fulgora, Hanetti, mancinella, Nerei, niveus, neritoideus, olearium, parthenopus, pusio, plicatus, sobrinus, Spengleri turritus.

MONOGRAPH OF THE SUBGENUS

TROPHON.

Generic Charcter.—Testa canalifera, clavata, vel fusiformis, varicibus longitudinalibus, numerosis, plerumque exfoliatis vel imbricatis vel serratis, et frequenter liris aut sulcis spiralibus sculpta, canali aperto; spira producta. Operculum corneum, nucleo terminali.—Most of the Trophons might be described as *laminated* Fusi or as Murices with *open* canals. A few of the species, shewing the former tendency only in early stages of growth or even not at all, are yet very closely allied in other characters to those that shew it most fully. *T. Philippianus*, for instance, is a near ally of *albolabratus*, and through it to *Geversianus*, which leads to *cretaceus*. *T. spiratus*, a regularly laminated shell in its normal growth, almost entirely loses that character in some of its variations. The genus, however, as it stands adopted by conchologists now is scarcely identical with that formed on the type of *T. muricatus*, Mont., which is a simple Fusus. In this work it is figured as a Fusus (f. 27, next monograph), but as it will be naturally looked for here, it has been thought best to give it a place (sp. 22) in this genus.

Species.

1. Geversianus, f. 7, 8, *Pallas.*—Testa subglobosa, purpureo-fusca, varicibus albis, vel pallidis distantibus, late exfoliatis superne angulatis, et sulcis spiralibus intermediis ornata; canali extus laminato, sub-angusto post labium internum umbilicato.—Of a globose form with broad laminated, exfoliated varices, which are raised and angular at the top of

the whorl near the suture. Small and young specimens have the varices closer and less prominent.

2. ALBOLABRATUS, f. 29, *E. Smith.*—Testa T. Geversiano simili sed ovata, anfractibus rotundis, spira elevata, varicibus crebris, angustissime exfoliatis; apertura intus purpureo-fusca labio externo albo, incrassato, crenato.—Form more oval, spire more produced, laminated varices much more numerous and less produced than *F. Geversianus*. Outer lip white, thickened and crenulated.

3. PHILIPPINARUM, f. 21, *Dunker.*—Testa globoso-subovata, purpureo-fusca, spiraliter leviter sulcata, longitudinaliter rotundo-plicata; anfractibus superioribus parvis longitudinaliter liris acutis plicatis; apertura latiuscula, margine albo subexpanso laqueato.—Although without distinct laminated varices, the species exhibits, in its younger stages, a tendency to sharpness of the longitudinal ribs or striæ, and the shape and colouring give it the appearance of *T. albolabratus* denuded.

4. LACINIATUS, f. 13, *Martyns.*—Testa ovato-fusiformis purpurea, lævi, spira elevata, anfractibus scalariformibus superne prope suturam angulatis, supra angulum subexcavatis; varicibus albis distantibus, late exfoliatis, ad angulum in spinis latis acutis elevatis, canali latiusculo, apertura lævi.—Very much more fusiform than *T. Geversianus*, with elevated spine, smooth between the varices, and the varices raised in laminated spines on the angle of the whorls.

5. CLATHRATUS, f. 3, 18, 51, 35*, *Muller.*—Testa fusiformis lævis alba, inter varices pallide purpureo-carnea; varicibus distantibus laminatis exfoliatis ornata; spira producta, anfractibus subscalariformibus, versus suturam angulatis, nonnunquam ad angulum in spinam fornicatam productis; apertura pyriformis, columella rectiuscula.—I am indebted to M. R. Bell for probably one of the most characteristic specimens ever seen of the variety *Gunneri*, f. 35*, characterised in the last line of the above description as having the laminated varices produced into vaulted spines at the angle. The shell figured as 51, which seems halfway between var. f. 35* and the normal form f. 18, is from Puget Sound, and has been named *T. multicostatus* by Eseholtz.

6. INTERSTRIATUS, f. 6, *Sowerby*.—Testa elongato-fusiformis, *T. clathrato* similis, sed gracilior, inter varices spiraliter leviter striata; varicibus ad angulum subnodosis.—The only specimen I have met with being in rather bad condition, I only name it as above provisionally. The varices have a little knob at the angle, and the interspaces are very slightly spirally striated. The whorls are more scalariform, and the last smaller in proportion to the bulk of the shell than in the preceding species.

7. CEPULA, f. 14, 27, *Sowerby*.—Testa alba, gracile bulbiformis lævis; spira acuminata, anfractibus declivibus, subangulatis, varicibus tenuibus subnumerosis, superne angulatis; ultimo anfractu subventricoso, in canalem angustum recurvum; longiusculum terminanti.—This species differs from *T. clathratus* in being more bulb-shaped, having the canal narrow, long and recurved, with shorter bulk for the last whorl, and having the varices thinner and more numerous.

8. FABRICII, f. 15, 16, *Beck*. (*Borealis*, *Reeve*).—Testa subelongato-fusiformis, subcæruleo-alba, semipellucida, spiraliter inter varices sulcata, varicibus distantibus ad suturam elevatis, ad angulum anfractuum subangulatis, spira acuminata, elevata; anfractibus declivibus, ultimo subovato; apertura pyriformi; canali breviusculo.—Distinguished by rather distant spiral grooves between the laminated varices.

9. TRUNCATUS, *Mont.* f. 2, 42, 43, 43*, *Pennant*.—Testa ovata, albida, lævis, varicibus laminatis lævibus, simpliciter arcuatis, crebris; spira subacuminata, anfractibus leviter convexis; apertura subpyriformis, canali truncato.—The larger shell, f. 2, is not spirally striated quite so distinctly as represented. All the varieties of *T. clathratus* have more or less of the vaulted angle that is fully developed in var. *Gunneri*; but in this species there is no indication of such angle.

10. SCALARIFORMIS, f. 38, *Gould*.—Testa T. clathrato similis, sed varicibus crassis, obtusis, haud laminatis.—It seems uncertain whether the original figure and description of this doubtful species were taken from a much worn and corroded specimen of *T. clathratus*, without the sharp-edged lamina.

11. CANDELABRUM, f. 11, *Reeve*.—Testa breviuscula solida

lævis albida, medio anfractuum fascia fulva cincta; spira aperturam longitudine fere æquanti, anfractibus angulatis, prope suturam planatis, ultimo latiusculo, varicibus laminatis, extantibus, distantibus, ad angulum anfractuum rectangulis, apertura superne angulata; canali brevi, recto. —This shell, Fusus cl. of Reeve, seems to be formed upon the same plan as the most characteristic of the Trophons. The varices are very distant and very broadly angular. It is a thicker and broader shell than *T. clavatus*, Sars.

12. Gooderichii, f. 25, 26, *Forbes.*—Testa alba tenuis lævis clavato-turbinata; spira producta scalariformi, anfractibus angulatis, varicibus laminatis, ad angulum anractuum spinosis munitis, ultimo breviter ventricoso; apertura superne ampla, canali elongato attenuato tortuo. —A curiously clavate species, corresponding with the *Haustellum* group of Murices. The laminated varices are formed into vaulted species at the angle of the whorls. Canal long and tortuous.

13. vaginatus, f. 31, *Philippi.*—Testa fulva, lævis, subclavata, spira producta, acuminata, anfractibus acutangulatis, scalariformibus; laminis depressis paucis, ad angulum in spinis latis subplanatis productis ultimo subventricoso, apertura trigona, canali recto, subelongato.—The few laminated varices of this clavate form are expanded at the augle of the whorls into broad, angular flattened spines.

14. clavatus, f. 47, *Sars.*—Testa angulato-fusiformis, tenuis, lævis; spira elevata, scalariformis; anfractibus subacutangulatis, varicibus laminatis, ad angulum anfractuum acute spinosis; apertura trigona, canali recto subelongato.—Although slightly clavate, this species is not so much so as *T. vaginatum*; its laminated varices are straight, and pointed at the angle. The figures in *Sars* slightly resemble hat of Philippi's *multilamellosus*, which is a fossil.

15. Walbergi, f. 54, *Krauss.*—Testa ovata solida, rubescens; spira producta; anfractibus scalariformibus, superne depressis, angulatis, varicosis, varicibus subdistanter lamellatis, supra angulum anfractuum erectis alatis acutis coronatis, ultimo ad angulum subcoronato, infra spiraliter crebre sulcato, varicibus laminatis subevanidis; apertura subovata,

purpurascenti, margine crenato; labio interno ad canalem inflexo.—On the spiral whorls the laminated varices are erect and winged above the angle of the whorls. On the last whorl they become more recumbent and partly disappear. The shell commences its growth like a Trophon, and finishes like a Murex or Purpura.

16. SPIRATUS, f. 44, 45, 46, *Adams.*—Testa breviter fusiformis; pallide fulva, nonnunquam medio anfractuum castaneo-unifasciata, costis æqualibus vel inæqualibus spiralibus, et varicibus plus minusve laminatis, ad angulum anfractuum subspinosis cancellata. Variat varicibus vix laminatis, liris irregularibus spiralibus intermediis.—The shells represented by figures 45, 46, are characteristic of the species, broadly cancellated, with smooth, square interstices. In f. 44, the varices are less laminar, and there are minor ridges between the larger spiral ones.

17. QUOYI, f. 24, *Reeve.*—Testa breviter fusiformis solida, spira breviter turrita, anfractibus angulatis, late cancellatis, ultimo costis spiralibus 4 crassis et longitudinalibus 16 cancellato; apertura subpyriformi superne angulata, labio externo intus obtuse dentato.—Although not distinctly laminated, the general character of *T. Quoyi* seems to bring it near the normal form of the preceding.

18. CRETACEUS, f. 9, 10, *Reeve.*—Testa subglobosa crassa, irregulariter liris spiralibus distantibus, striis intermediis et costis longitudinalibus obtusis sculpta; spira breviuscula, anfractibus angulatis, ad angulum obtuse coronatis, apertura magna, versus marginem expansa, margine crenato; canali brevi, extus laminato umbilicato.—The variations to which this species is liable make it difficult to identify specimens in some cases, but by comparing the upper whorls the varieties are more easily brought together.

19. POLYGONALIS, f. 4, *Reeve.*—Testa subquadrato-ventricosa, albida; spira exserta, anfractibus angulatis, longitudinaliter undulatim costata, spiraliter distanter lirata, canali mediocri, extus distanter exfoliata subumbilicata, ad terminum acuminata.—More elongated and more distinctly and distantly ribbed than the preceding and following species.

20. SQUAMOSUS, f. 1, *Broderip.*—Testa subglobosa alba

purpurascens, costis crassis rotundis, liris validis subdistantibus decussatis sculpta; spira breviuscula, anfractibus paucis, angulatis; apertura subquadrata, intus purpurea, labio externo crasso, extus varicoso.—Rather more murex-like than the preceding and others of similar form.

21. CARDUUS, f. 5, *Broderip*.—Testa oblique quadrata, albida, medio pallide fusco unifasciata; spira acuminata, anfractibus declivibus, subtus angulata, ultimo longitudinaliter costato, costis tuberculatis, canali brevi, extus anguste laminato, umbilicato; apertura subtrigona, margine spinoso.—Of a singular lozenge form and sharply angular above the middle of the whorls.

22. MURICATUS (as Fusus, pl. iv. f. 27), *Montfort*.—Testa fusiformis alba vel fusca; spira acuminata, anfractibus rotundis, longitudinaliter plicatis, spiraliter rugoso-liratis, liris super plicas submuricatis; apertura claviformi, labio externo subexpanso crenato, canali angusto recto.—Having inadvertently figured the Mediterranean variety of this among the Fusi, and also omitted the British variety in both Monographs, I am placed in a difficulty, and can only repeat the name in this genus or subgenus, to which, as at present constituted, it does not really belong: the British variety is more delicate in sculpture and colouring.

23. BARVICENSIS, f. 12, 52, *Johnson*.—Testa albida, quam T. muricatus magis angulata, latior, distanter muricato-costata, subdistanter lirata ad angulum anfractuum spinosa, canali brevi, truncato.—A broader and shorter shell than *T. muricatus*, cancellated with distant laminated ribs and spiral ridges. The canal is short, thick, and truncated.

24. FIMBRIATULUS, f. 49, 50, *Adams*.—Testa pallide rosacea, breviter fusiformis, laminatim costata, liris crebris, ad costas crispatis cincta, anfractibus angulatis; apertura pyriformi, labio externo lato expanso, fimbriato, canali subclauso.—It is not without hesitation that on account of its laminated structure I admit this species in the present genus, its canal being partly plated over, as in Murex.

Species 25 omitted.

26. ORPHEUS, f. 28, *Couthoy*.—Testa subovata, brevis, albida, regulariter cancellata; spira producta, anfractibus

superne angulatis, ultimo ventricosa; apertura brevi, labio externo crenato, canali brevissimo truncato.—The shell figured from the late Mr. Taylor's collection seems to approach Couthoy's type with sufficient nearness.

27. SUBANGULATUS, f. 48, *Sowerby*.—Testa pallida, breviter fusiformis; anfractibus subquadratis, longitudinaliter plicatis, spiraliter crebre liratis, superne angulatis, ultimo subventricoso; canali brevi, recto, late truncato.—A shell of simple form and sculpture, not very characteristic of the genus.

28. DUNKERI, f. 22, *Krauss*.—Testa brevissime fusiformis, costis angulatis et liris ad costas nodosas cancellata, albida vel pallide carnea nonnunquam medio anfractuum et ad suturam fasciata; anfractibus angulatis supra angulum subdeclivibus, foveolatis; apertura brevi, canali brevissimo.—On the whole, this South African shell agrees better with the present genus than with Murex, in which *Krauss* placed it.

29. CRISPUS, f. 30, *Gould*.—Testa albida, angulatim subfusiformis, spiraliter inter costas sulcata, costis crassis fimbriatis approximatis crispatis munita, spira elevata, anfractibus declivibus subangulatis; apertura intus lirata, margine crenato.—The ribs are thick and fimbriated, with crisped points turned backwards.

30. MODESTUS, f. 55, *Gould*.—Testa quam *T. crispus* angustior, magis elongata, fusca, anfractibus vix prominentibus.—A white shell, resembling *T. crispus* in sculpture, but narrower and with less angular whorls.

31. SUBSERRATUS, f. 32, 33, *Sowerby*.—Testa griseo-alba, subelongato-fusiformis; spira producta, anfractibus 6, rotundis altis vel obtuse angulatis, tenuiter et irregulariter liratis, longitudinaliter plicatis, liris superioribus subserratis, plicis versus ultimum anfractum subevanidis; apertura elongata, canali subcurvo.—A pale gracefully formed shell with the varices on the upper whorls slightly serrated.

32. NUCLEUS, f. 19, *Sowerby*.—Testa parva, albida, subovata; spira acuminata, anfractibus parvis paucis, rotundis, ultimo ventricoso longitudinaliter rotunde plicato, canali brevi, subtortuo.—A small white shell with no striking peculiarities.

33. PALLIDUS, f. 20, *Sowerby*.—Testa T. nucleo similis, sed elongata, anfractibus versus suturam tumidis.—Similar

in sculpture but longer in form than *T. nucleus*, with the whorls slightly tumid.

34. SCABROSUS, f. 34, *Sowerby*.—Testa fusiformis, alba, scabra; spira producta, anfractibus 5, prominentibus, rotundis subdistanter plicatis, spiraliter rugose liratis interstitiis sulcatis; apertura pyriformi, canali producto, extus varicoso et umbilicato.—This species, *Murex clathratus* of *Reeve*, appears more suitably placed among the Trophons. This necessitates the change of name, as *clathratus* (see sp. 5) is the Linnæan name of a well-known species.

35. LAMELLOSUS, f. 17, *Philippi*.—Testa albida crassa, rugose distanter lirata, breviter fusiformis, longitudinaliter plicata, plicis rotundis, subdistantibus, interstitiis lirarum foveolatis; anfractibus rotundis, ultimo ventricoso, apertura pyriformi, margine crenato, canali brevi extus subumbilicato. —Rough, shortly fusiform with strong plaits and thick ridges with pitted grooves between.

36. SQUAMULOSUS, f. 53, *Philippi*.—Testa subpyriformis, pallida; spira producta, anfractibus prope suturam angulatis, supra angulum planatis, infra liris distantibus prominentibus rare squamatis cinctis; apertura pyriformi margine crenulato, canali brevissimo.—A Mediterranean species with scaly ridges resembling those of Murex erinaceus but without varices.

Species of Doubtful position.

37. NORRISII, f. 36, *Gould*.—Testa ventricosa, griseo-alba, anfractibus subrotundis, longitudinaliter distanter plicata, plicis rotundis; apertura brevi, canali brevissimo, extus lato, laminato.—*Fusus?*

38, 39. MURICIFORMIS, f. 40, and LIRATUS, f. 41, *corrugatus*, Rve.: are not these the same and do they not rather belong to the Genus Fusus?

40. HARPULARIA, f. 23, *Gould*.—Pertaining rather to *Fusus?*

41. INNOTABILIS, f. 39, E. Smith.—*Purpura?*

ALPHABETICAL INDEX TO TROPHON.

Sp.

2. albolabratus, *E. Sm.* f. 29.
Bamfius, Mont. = truncatus, sp. 9.
23. Barviceusis, *Johns.* f. 12, 52.
11. caudelabrum, *Ad. & Rve.* sp. 11.
21. carduus, *Brod.* f. 5.
7. cepula, *Sby.* f. 14, 27.
5. clathratus, *Müll.* f. 3, 18, 35*, 51.
14. clavatus, *Sars.* f. 47.
corrugatus, Rve.=muriciformis.
18. cretaceus, *Rve.* f. 9, 10.
29. crispus, *Gld.* f. 30.
28. Dunkeri, *Krauss*, f. 22.
8. Fabricii, *Bck.* f. 15, 16.
24. fimbriatulus, *Ad.* f. 49, 50.
fimbriatum Mart.=Geversianus, sp. 1.
1. Geversianus, *Pal.* f. 7, 8.
12. Gooderichii, *Fbes.* f. 25, 26.
Gunneri=clathratus, sp. 5.
40. harpularia, *Gld.* f. 23.
41. inuotabilis, *E. Sm.* f. 39 (Purpura).
6. interstriatus, *Sby.* f. 6.
4. lacineatus, *Mart.* f. 13.
lamellosus, *Gml.* = laciniatus, sp. 4.

Sp.

lamellosus, Gray, Cepula.
35. lamellosus, *Ph.* f. 17.
39. liratus, *Phil.* f. 41.
Magellanicus Lamk.=Geversianus, sp. 1.
30. modestus, *Gld.* f. 55, B.M.
multicostata, *Esch.* = clathratus, sp. 5.
22. muricatus, *Mont.* figd. as. Fusus, f. 27.
38. muriciformis, *Phil.* f. 40.
37. Norrissii, *Gld.* f. 36.
32. nucleus, *Sby.* f. 19.
26. Orpheus, *Couthoy*, f. 28.
33. pallidus, *Sby.* f. 20.
3. Philippinarum, *Dnk.* f. 21.
19. polygonulus, *Rve.* f. 4.
17. Quoyi, *Rve.* f. 24.
34. scabrosus, *Sby.* f. 34
10. scalariformis, *Gld.* f. 38.
16. spiratus, *Ad.* f. 44, 45, 46.
20. squamosus, *Brod.* f. 1.
36. squamulosus, *Phil.* f. 53.
Stuarti, *E. Sm.* f. 37, a Murex.
27. subangulatus, *Sby.* f. 48.
31. subserratus, *Sby.* f. 32, 33.
9. truncatus, *Ström.* f. 2, 42 43, 43*.
13. vaginatus, *Desh.* f. 3.
15. Walbergi, *Krauss*, f. 5.

MONOGRAPH OF THE GENUS

FUSUS.

Testa canalifera, elongato- vel oblongo-fusiformis versus medium, vel infra medium ventricosa, epidermide induta, columella lævi, canali aperto. Operculum corneum, nucleo terminali.—The Fusi are distinguished from Fasciolariæ and Turbinellæ by the absence of plaits or notches on the columella; from Pyrulæ by the ventricose part being at the middle or slightly below, and from Trophons and Tritons by being in no degree varicose or laminated. Latiaxis is a peculiar genus in no danger of being mixed up with them, and the lateral nucleus of the operculum and short twisted varicose canal in Buccinum will generally distinguish that genus from them. In grouping the various forms within the genus, the difficulty is to find lines of demarcation; still the true spindles, with long spire and canal, may be called *sect.* 1, *species* 1 *to* 66. The shorter and more angular species will form *sect.* 2, *species* 67 *to* 99. The more bulky, Buccinoid, mostly Northern forms with short open canals, are considered by some authors distinct, and form the genus Neptunea or Tritonium, and constitute *sect.* 3, *species* 100 *to* 117. The lighter, more slender, and comparatively smooth, generally Northern species, which have been distinguished as genus Sipho, *sect.* 4, *species* 118 *to* 132.

Species.

Sect. I. *Species* 1 *to* 66.

1. PROBOSCIDIFERUS, f. 31.—Testa maxima rufo-flavida, medio latissima; spira breviuscula, anfractibus 10 depressis acute carinatis, supra carinam subexcavatis, ultimo carinis plurimis quarum tribus superioribus prominentibus cincto; apertura magna, cauda longa ampla, post labium umbilicata. —This species grows to an immense size and is always of a cheese or melon colour.

2. TASMANIENSIS, f. 43.—Testa maxima, ventricoso-fusiformis, spiraliter inæqualiter sulcata et lirata, fulva, spiraliter castaneo fasciata; spira conica lata, supra medium angulata, ad angulum nodulis cuneatis cincta; apertura polygona, margine denticulato; canali angusto, breviusculo. —Mr. Hanley's specimen of this species being most fully developed, I figure it reduced in size, with bands of colour from specimens in the British Museum.

3. LONGISSIMUS, f. 3, *Gmel.*—Testa elongata, alba, valide spiraliter lirata, medio ventricosa, anfractibus angulatis, ad angulum nodosis, supra angulum declivibus, subexcavatis, infra rotundis; cauda recta, angustiuscula; apertura magna, subcentrali, intus lirata, margine laqueato.—The shell occurs more than twice the length of the figure. It is very angular, with stout knobs on the angles.

4. PERCYANUS, f. 77.—Testa ventricosa, *F. longissimo* similis, latior, fusco flavescens, ad angulum fasciata.—Differing from *F. longissimus* in being wider and shorter and in having a band of reddish yellow upon the angles.

5. TUBERCULATUS, f. 11, *Lamarck.*—Testa alba lata breviuscula, subplanulatim spiraliter costata; spira acuminata, anfractibus angulatis, ad angulum distanter tuberculatis, inter tubercula castaneo maculatis; ultimo ventricoso; apertura magna, intus lirata, margine laqueato.—A broad white shell, with bright square spots between the distant tubercles, and having much less prominent ribs than in F. torulosus.

6. TORULOSUS, f. 9, *Lamarck.*—Testa breviuscula rugosa fuscata ventricosa, spiraliter undulatim acute costata; anfractibus latis brevibus, medio angulatis, ad angulum tuberculatis, inter tubercula fusco maculatis; ultimo ventricoso;

apertura magna, intus lirata, margine rude crenato.—Broad, rough, of a burnt brown colour.

7. VERSICOLOR, f. 22, *Gmelin.*—Testa ventricosa, spiraliter subacute lirata, pallide fulva, distanter longitudinaliter costata, inter costas castaneo strigata, ad angulum maculata, spira breviuscula, anfractibus 10, rotundis vel medio leviter angulatis, ultimo subelongato; apertura subovata, intus crenulato gradatim in canalem decurrente; canali crasso.—Our fig. 22 represents a medium degree of angulation. The broader and more angular was taken by *Rve.* for *distans*, Lam. The original of Chemn. is narrow and round-whorled.

7*. DISTANS, f. 162, *Lam.*—For this species we figure a shell in Mr. Hanley's collection, which closely resembles that figured by Kiener from Lanarck's collection.

8. UNDATUS, f. 6, *Gmelin.*—Testa magna ponderosa sublævigata, spiraliter leviter striata, anfractibus supra medium subangulatis, tuberculis maximis undatis; apertura parva, margine crenulato; apice acuminato, canali breviusculo, subtortuo.—The large tubercles being of solid structure makes this shell the heaviest of its tribe.

9. SIMILIS, f. 44, *Baird.*—Testa albida, rugosa, spiraliter rudissime costata, ad angulum anfractuum distanter nodis maximis munita.—This species has much the form of *F. undatus* and *F. similis*, but contrasts with both, especially the former, in the roughness of surface and thickness of ribs.

10. NODOSOPLICATUS, f. 45, *Dunker.*—Testa albida lata subrugosa liris tenuibus cincta; spira breviter conica, anfractibus 9 angulatis, ad angulum nodosis; apertura subangulata, intus lirata, margine crenato; canali rectiusculo.—Resembling *F. undatus* and *F. nodoso-plicatus*, but differing from the former in being more sharply tuberculed, and from the latter in being much smoother.

11. BECKII, f. 18, *Jonas.*—Testa alba ventricosissima, planulatim spiraliter costata; spira brevi, acuminata, anfractibus acute costatis, depressis, latis, ultimo latissimo, canali angusto, tortuo; apertura magna intus et ad marginem crenata.—The whorls are depressed and wide, the spiral ribs are slightly flattened, and the last is suddenly contracted where it passes into the narrow and tortuous canal.

12. NOBILIS, f. 4, *Reeve.*—Testa alba, ventricosa, spira

latiuscula, anfractibus 12 rotundis, spiraliter liratis superioribus rotundo-plicatis, ultimo vix plicato, globoso, magno, cauda breviuscula, angusta, apertura rotunda.—Remarkable for the fulness of the last whorl.

13. DUPETITTHOUARSI, f. 5, *Reeve*.—Testa ventricoso-fusiformis alba, lineis rubris longitudinalibus hinc illic ornata, anfractibus 11 rotundis spiraliter acute liratis, superioribus plicato-costatis, ultimo globoso, magno; apertura magna, margine crenato, aurantio rubescenti.—The middle whorl is nearly as ventricose as in *F. nobilis*. The whorls are sharply ridged. The margin is generally orange-red, the edges of successive margins appearing at intervals on the surface of the whorls.

14. OBLITUS, f. 16, 17, *Reeve*.—Testa fulva, flammulis fuscis strigata, costis subplanulatis interstitiis linearibus cincta, spira acuminata; anfractibus angulatis, ad angulum tuberculatis, supra angulum planulatis, subexcavatis, ultimo ventricoso, supra canalem brevissimo.—Differing from *F. colus* and similar species in having smooth flattened ribs with narrow interstices. It is also more ventricose, and the body whorl more globose, and suddenly cut off from the canal.

15. COLUS, f. 14, 15, *Linnæus*.— Testa angusta alba, versus extremitates ustulata; spira acuminata, anfractibus 12 plus minusve angulatis, ad angulum acute tuberculiferis, inter tuberculas fusco maculatis, omnino subdistanter spiraliter liratis, inter liras tenuiter striatis; ultimo brevi, cauda gracillima versus terminum flexuosa.—The want of distinct keel and tubercles at the angular or subangular part of the whorls, and of intermediate spots, are the reasons given for distinguishing the var. f. 14 as *F. longicauda*, Reeve, as of Borg. It is singular, however, that the fig. referred to is that of a very angulated shell. The differences are such as obtain between individuals of most species.

16. TOREUMA, f. 12, 13, *Lamarck*.—Testa quam F. colus latior, lævior, anfractibus late angulatis ventricosis tuberculatis inter-maculatis, et strigatis; aperturæ margine expanso, crenulato.—On the whole, shorter and wider than F. colus. The aperture, when mature, is somewhat expanded and crenulated at the margin.

17. SANDVICHENSIS, f. 25, *Sowerby*.—Testa alba, tenuiter lirata; spira elongata, anfractibus 11, superioribus rotundis rotunde plicatis; ultimo angulato; canali spiram longitudine

æquanti.—Of a much finer sculpture than F. Novæ-hollandiæ, with rounded upper, and slightly angular lower whorls. The ribs are rounded and the canal and spire about equal in length.

18. PFEIFFERI, f. 156, *Dunker.*—Testa alba, epidermide fusco induta, spiraliter subdistanter lirata; anfractibus 8 prominulis (sutura paulo excavata), longitudinaliter leviter plicatis; cauali angusto, recto.—A small shell, figured by Philippi, and resembling *F. Novæ-hollandiæ*, from which it differs in size and proportions.

19. NOVÆ-HOLLANDIÆ, f. 26, *Reeve.*—Testa alba, epidermide subrugosa fusca induta, latiuscula, liris prominentibus distantibus spiraliter cincta, spira breviuscula anfractibus 9 brevibus, latis, rotunde plicatis; apertura ovata, margine crenato, canali crasso rectiusculo.—This species may be distinguished by the vertical distance between the smooth spiral ribs.

20. GRACILLIMUS, f. 10, *Adams.*—Testa fusca elongata angusta, spira quam canalis brevior, anfractibus 11 rotundis, brevibus, longitudinaliter plicatis, spiraliter costatis, canali angustissimo elongato; apertura parva, margine crenato.—A remarkably narrow brown shell with the whorls rounded and regularly plaited. The canal is long, narrow, and straight.

21. TURRICULA, f. 24, *Kiener.*—Testa alba, subrugose spiraliter costata, interstitiis profundis, spira breviuscula, anfractibus 7 prominente rotundis; plicis rotundis, crassis, regularibus, costatis; sutura profunde excavata; canali elongato tortuo; apertura subovata, margine crenato.—With rounded, strongly-ribbed whorls, and a profoundly excavated suture.

22. MULTICARINATUS, f. 23, *Lamarck.*—Testa quam *F. turricula* magis ventricosa, haud tantum profunde ad suturam excavata, plicis haud tantum prominentibus.—It is difficult at first sight to distinguish between this and the preceding species. The difference consists in the greater prominence of the plaits and whorls and the deeper excavation of the suture in *F. turriculum*. See note on Plate-description IV.

23. SPIRALIS, f. 37, *A. Adams.*—Testa alba, spiraliter acute carinata, spira obtusa, anfractibus 7 scalariformibus, valde prominentibus, angulatis, ad angulum acute tuberculatis, sutura contracta.—White, scalariform, sharply keeled, sharply tubercled on the central keel of all but the last whorl.

24. SPECTRUM, f. 35, *Reeve.*— Testa albida tenuiuscula, spira elevata, anfractibus 9, superioribus prominentibus, rotundis distanter liratis, profunde plicatis, ultimo evanide lirato, angulato, ad angulum acute carinato et tuberculato.—The upper whorls are rounded, prominent, with thick rounded plaits; but the last whorl is angular, with one prominent keel, the rest having almost disappeared.

25. DILECTUS, f. 36, *A. Adams.*—Testa tenuis, minutissime scabra, alba longitudinaliter distanter rufo strigata, distanter lirata, inter liras tenuissime striata; spira breviuscula, anfractibus superne vix subangulatis ad suturam spiraliter filosis versus apicem costata; apertura angustiuscula, canali declivi, tortuo.—A white shell with a few longitudinal stripes. The sculpture is fine and delicate, consisting of very finely scabrous lines between distant spiral ribs.

26. ACUS, f. 39, *Adams and Reeve.*—Testa angustissima, aureo-fusca, longitudinaliter plicata, spiraliter subdistanter lirata; spira acuminata, anfractibus productis, medio angulatis, canali spiram longitudine æquante.—A remarkably narrow shell with no other striking characteristics.

27. NICOBARICUS, f. 21, 171, *Chemnitz.*—Testa rugosa fusco cornea, flammulis subangulatis, nigrescentibus strigata; spiraliter liris rudis, crassis, subrotundis, interstitiis crenatis cincta; spira elevata, anfractibus acute angulatis et tuberculatis, apertura crenata, canali lato, distanter spiraliter costato.—One of the most rugose species of the group, having prominent rough ridges. See note on Plate-description XIV.

27*. LATICOSTATUS, f. 60, 172, *Reeve.*— Testa *F. Nicobarico* similis sed pallidior, lævior, costis spiralibus magis planulatis, anfractibus obtuse angulatis.—Broadness of growth is mentioned as the chief distinction between this species and *F. Nicobaricus*, but we have seen specimens in which this condition is reversed. The present is, however, a smoother shell of different colour and texture. See note on Plate-description XIV.

29. MARMORATUS, f. 20, 158?, 163, *Philippi.*—Testa breviuscula subrugosa, fulva, strigis maculisque fusco-marmorata, spiraliter rude costata; spira subelevata, anfractibus obtuse angulatis, longitudinaliter costatis, ad angulum tuberculatis; cauda breviuscula.—After comparing a great number, the writer decides to separate the roughly keeled and the smooth shell, f. 159, under the two following names.

30. LÆVIGATUS, f. 157, *Sowerby*.—Testa breviuscula, fulva, castaneo strigata et maculata, acute subalternatim costata; anfractibus supra medium angulatis, longitudinaliter plicatis, plicis rotundatis; apertura alba, sulcata, crenata, fauce fuscata, canali brevi.—More angular and narrower than F. marmoratus.

30*. RUDICOSTATUS, f. 19, 164, *Sowerby*.—Testa F. marmorato similis sed costis spiralibus distantibus prominentibus.—The spiral ribs are prominent and distant, and granulated, and the general aspect differs from *Philippi's* type of marmoratus, f. 163.

31. NODICINCTUS, f. 35*, *A. Adams*.—Testa F. lævigato similis, sed angusta; recta, ad angulum acute carinata, angulo nodoso articulato.—This has a row of tubercles articulated with brown spots.

32. BIANGULATUS, f. 159, *Deshayes*.—Testa marmorato similis sed ultimo anfractu obtuse biangulato, fauce castaneo.—I do not particularise the characters of this species, because, with one exception, they are identical with those of *F. rudicostatus*, the exception being the greater thickness and the double angle (the roughest kind), and subject to the same variations. Reeve figures an example of the species as a variety of *F. polygonoides*, as from Belcher's collection. The specimen here figured is from Mr. Hanley's collection, and may have been included with those which that gentleman had from Belcher's.

33. SUBQUADRATUS, f. 28, *Sowerby*.—Testa alba, angusta, spiraliter lirata, anfractibus superioribus distanter costata, inter costas purpureo-fuscata, inferioribus angulatis, ultimo biangulato, ad angulum superiorem nodis prominentibus acutis, apertura intus purpureo tincta, margine denticulato. —A double row of tubercles forms a second angle at the lower part of the last whorl. The shell is much narrower than F. biangulatus.

34. PATELI, f. 38, *Dunker*.—Testa alba, aureo inter liras et costas strigata, spira breviuscula, lata, anfractibus 9 brevibus, latis, vix prominentibus, acute tuberculato-costatis.—In some respects resembling *F. acuticostatus*, but broader and less sharply tubercled and ribbed. It has not the same prickly appearance.

35. ACUTICOSTATUS, 30, *Sowerby.*—Testa parva fulva, spiraliter interruptim distanter lirata; spira acuminata, anfractibus 11 brevibus, costis albis, acutissime tuberculatis munitis, inter costas castaneo strigata, apertura alba intus distanter lirata, margine denticulato; cauda canali alternatim spiraliter costata.—A beautiful little shell with white ribs sharply tubercled by the crossing ridges. A chestnut stripe between the white ribs throws them into relief and gives a prickly appearance to the tubercles.

36. INCONSTANS, f. 57, 58, *Lische.*—Testa rugosa, varie scabro-lirata et nodoso-plicata, strigis fasciisque varie picta; spira brevi lata, anfractibus 7, depressis, angulatis, ultimo compresso-ventricoso, a canali distincto, apertura intus lirata, margine crenulato, canali spiram longitudine superanti.—Notwithstanding the strange variations in form, sculpture and colour presented in this species, the perpendicular compression and lateral protuberance of the last whorl give it a certain recognisable individuality.

37. ARTICULATUS, f. 66, *Sowerby.*—Testa gracilis tenuis albida, spiraliter subdistanter lirata, inter liras striata; anfractibus 9, rotundis, prominentibus, costis nodosis longitudinaliter plicata, liris inter costas punctato-articulatis sutura excavata, ultimo anfractu brevi subdepresso, apertura intus striata, margine crenato.—Rather thin and narrow with spiral ribs over rather close longitudinal plaits. The liræ are finely articulated with brown spots between the plaits.

38. CÆLATUS, 32, *Reeve.*—Testa breviuscula, pallidissime cornea, spiraliter distanter acute lirata, longitudinaliter distanter prominente plicata, plicis ad liras tuberculatis; anfractibus 8, depressis, super medium subangulatis, canali breviusculo, curvo.—In this whitish shell, the spiral threads in passing over the thick and distant longitudinal ribs are produced into sharp tubercles.

39. ASSIMILIS, f. 78, *A. Adams.*—Testa cælato similis, anfractibus magis depresso-angulatis, apertura contracta, margine extus varicoso, intus denticulato, canali recto, latiusculo; colore pallidissime roseo.—At first sight resembling *F. cælatus* of Reeve, but differing in having the whorls more depressed and more angular, the canal staighter, and the mouth contracted with an external varix and denticulated margin.

40. SYRACUSANUS, f. 8, 56, *Linnæus*.—Testa breviuscula, fusca, vel fulva castaneo varie fasciata, anfractibus subquadratis gradatis depressis, spiraliter crebre lirata, plicis numerosis subnodosis costata; apertura subquadrata, brevi.—We figure two of the commonest varieties of this Mediterranean shell.

41. CREBRILIRATUS, f. 49, 50, *Reeve*.—Testa ventricoso-fusiformis ustulata fusca, liris inæqualibus subscabris interdum alternatis cincta, anfractibus ventricosis angulatis, nodoso-plicatis, ultimo magno, canali lato.—There does not appear to be any sufficient reason for separating the variety f. 49, which is the F. gradatus of Reeve.

42. USTULATUS, f. 48, *Reeve*.—Testa *crebrilirato* similis sed magis volutæformis, ultimo anfractu magis elongato.—The fine specimen in Mr. Hanley's collection enables me, on the whole, to decide that this species is reasonably separable from *F. crebriliratus*. It is more like a volute in form, the more elongated body whorl passing more gradually into a shorter and wider canal.

43. AUREUS, f. 51, *Reeve*.—Testa *crebrilirato* similis, sed anfractibus angustioribus, magis rotundis, liris tenuioribus.—I have great doubt whether this may not be a variety of *F. crebriliratus*.

44. ROSTRATUS, f. 41, 42, *Olivi*.—Testa breviuscula, fulva, vel rufa; anfractibus brevibus rotundis, longitudinaliter profunde plicatis, spiraliter acutissime liratis, liris acute productis, nonnunquam echinatis; ultimo anfractu ventricoso, apertura ovata, intus lirata margine aculeato, canali breviusculo.—Much more pronounced in its prickly character than *F. muricatus*. The variety (f. 42) is almost different enough to be separated.

45. MURICATUS, f. 160, 161, *Montagu*.—Testa breviuscula; rufo-fusca vel pallide fulva, longitudinaliter rotunde plicata, liris acutis, super plicas acute productis cincta; anfractibus 9, depressis, rotundis, ultimo ventricoso, canali brevi.—This species has a prickly appearance. It is usually placed in the genus Trophon, but has the characters of a true Murex. The more prickly var. f. 161 is the *echinatus* of Philippi.

46. FRAGOSUS, f. 47, *Reeve*.—Testa albida, gracilis; spira elevata, acuminata, spiraliter acute tuberculatim lirata,

longitudinaliter plicata anfractibus rotundis, sutura profunda, apertura subrotunda, canali brevi.—A strongly plaited little shell resembling F. pulchellus, but without colour and with the plaits larger and not so sharply separated. There is a variety of this which unfortunately is not figured, which has patches of colour on the upper and lower part of the ribs, as in *F. pulchella*, which is, however, a much more finely sculptured shell.

47. PULCHELLUS, f. 7, *Philippi.*—Testa turrita subaurea, longitudinaliter distanter et profunde plicata, plicis supra infraque castaneo maculatis; anfractibus rodundatis, spiraliter striatis; canali breviusculo subacuminato; apertura subrotunda, margine fulvo, crenato.—A white band in the centre of the whorls interrupts the deep chestnut brown with which the rather narrow and distant ribs are painted of the truly pretty shell.

48. MINUTISQUAMOSUS, f. 46, *Reeve.*—Testa breviter fusiformis, medio subventricosa, fulva, spiraliter tenuiter lirata, liris tenuissime squamoso-serratis; anfractibus rotundis, canali breviusculo.—More compact in form and sculpture than *F. vulpicolor*, with fine ridges minutely serrated.

49. VULPICOLOR, f. 73, *Sowerby.*—Testa rufo-fusca breviuscula, alternatim lirata; spira producta, anfractibus 8 prominentibus rotundis, superne crebre plicatis; apertura subrotunda, canali brevi, truncato.—A pretty little fox-coloured shell from New Zealand.

50. NIGRO-ROSTRATUS, f. 67, *Smith.*—Testa breviter fusiformis solida rugosa; ustulata, inter costas et ad canalem nigrescens; spira turrita, anfractibus angulatis, liris crassis, ad plicas tuberculatis cincta; plicis crassis, angulatis, subdistantibus, canali breviusculo.—A roughly sculptured shell with blackish brown colouring on the canal and between the thickened, angular, tuberose ribs.

51. BLOSVILLEI, f. 79, *Deshayes.*—Testa breviter rhomboidea, fulvo-grisea, rubro lineata, spira acuminata anfractibus acute angulatis supra angulum subexcavatis, ad angulum nodulis cuneiformibus coronatis; apertura pyriformi, luteo, postice profunde canaliculato, intus conspicue liratim dentato, canali breviusculo.—The sharply angular whorls, the short chanelled sinus of the mouth and broad ribs or denticles of the outer lip, give this species a peculiar character.

52. AMBUSTUS, f. 40, *Gould.*—Testa lævis, breviuscula, robusta, distanter valide plicata fulva, inter costas castanea, spira acuminata, anfractibus 8 superne angulatis, plicis nodosis ad angulum prominente tuberculatis, canali breviusculo, apertura ovata, intus lirata, margine crenato.—At the moment of writing I have not the means of comparing this with F. rufus, from which, however, it is sufficiently distinct.

53. RUFUS, f. 91, *Reeve.*—Testa solida, lævis, rufescens, subelongato-fusiformis, longitudinaliter decemplicata, plicis prominentibus ad angulum, nodosis, lineis rubris notatis; spira elevata, anfractibus superne declivibus, medio rotundatim angulatis, apertura alba, clavata, canali longiusculo.—This shell has so much of the character and appearance of the *Latirus* group that one looks, although in vain, for the traces of folds on the columella.

54. DIADEMA, f. 53, *Lesson.*—Testa clavato-turbinata, fusco viridis, lævigata; spira brevi turrita, apice papilloso, anfractibus 5, superne angulatis, ad angulum squamis acute trigonis lamelliformibus coronatis; ultimo infra unicarinato, carina spinosa; apertura subquadrata canali angusto, elongato superne spinoso-costata.—The beautiful pagoda-like spire and clavate form of this species places it alone, free from every comparison.

55. CLAUSICAUDATUS, f. 55, *Hinds.*—Testa elongato-fusiformis, olivaceo-fusca, læviuscula, spira elevata, apice mammilata, anfractibus vix prominentibus, rotundis; apertura declivi, margine inflexo, infra expanso, incrassato, canali brevi, clauso.—The thickened inflected outer lip closing the canal in the manner of many murices is only one of the striking peculiarities of this remarkable shell.

56. SIMPLEX, f. 34, *Smith.*—Testa gracile fusiformis, alba, spiraliter sulcata, longitudinaliter late plicata, spira elevata, acuta, anfractibus supra medium declivibus, infra tumidis; apertura elongato-fusiformis canali breviusculo, truncato.—This may possibly be a young specimen of some unknown species.

57. NIPONICUS, f. 70, *Smith.*—Testa infra spiram pyriformis, leviter longitudinaliter costatis, liris spiralibus ad costas concinne tuberculatis, tuberculis griseo-purpureis; spira producta, anfractibus 6 subrotundis; ultimo elevato, elongato,

subventricoso, canali angusto, producto.—The tubercles on the ridges where they rise over the longitudinal plaits have the appearance of little grey seeds.

58. Maroccanus, f. 2.—Testa sinistrorsa turrita fulva, spira elevata, anfractibus 8 spiraliter liratis, longitudinaliter plicatis, canali brevi, tortuo.—A small brown-coloured sinistral shell with elevated spire. The whorls are not separated by a broad excavation at the suture as in *F. elegans*.

59. elegans, f. 1, *Reeve*.—Testa gracilis, alba, sinistrorsa; anfractibus longitudinaliter costatis, spiraliter tuberculatim liratis, ad suturam late excavatis; spira elevata, acuminata, canali brevi, columella tortua.—More elegantly fusiform than F. Maroccanus, the only other specifically sinistral shell of the group.

60. graciliformis, f. 62, *Sowerby*.—Testa eleganter fusiformis, albida, gracilis, tenuissime crebre lirata; spira attenuatim producta, acuminata, anfractibus 10, declivibus medio subangulatim prominulis, superioribus longitudinaliter plicatis; apertura utrinque acuminata, margine crenato, canali producto, gracili eleganter tortuo.—Our reduced figure scarcely does justice to the graceful form of this species, which differs from *F. Reevianus* in the narrowness of the body whorl and more attenuated production of the extremities.

61. rubrolineatus, f. 68, *Sowerby*.—Testa infra spiram pyriformis lævis fulva, rotunde distanter costata, inter costas late castaneo fasciata, liris spiralibus rubris ad costas tuberculatis cincta, spira brevi, anfractibus 7 declive subrotundis, ultimo subelongato ventricoso; apertura alba, oblonga, margine rubro, minute denticulato, canali breviusculo.—The distant ridges are interruptedly red, and where they ride over the rather oblique distant ribs are raised into tubercles.

62. Reevianus, f. 82, *Petit*.—Testa subgracile fusiformis, ferruginosa, tenuiter spiraliter filosa, superne subcancellata spira breviuscula, anfractibus 7 declivibus, vix angulatis, ultimo elongato, apertura magna, canali breviuscula.—Rather approaching the Sipho group but still with the canal distinct.

63. albinus, f. 72, *A. Adams*.—Testa lævis, alba, gracile fusiformis, spiraliter undulatim lirata, plicis longitudinalibus rotundis subdistantibus costata; spira subproducta; anfrac-

tibus 7, vix angulatis, ultimo rotundo, ventricoso; apertura subovata, intus lirata, canali producta, subretrorsa.—The spiral ridges and longitudinal ribs are smooth and rounded.

64. FILOSUS, f. 29.—Testa elongato-fusiformis, crassa, albida, sublævigata, medio subventricosa, omnino ligulis rubris tenuibus cincta; spira producta scalariformi, turrita, anfractibus 6 longitudinaliter rotunde et prominente decem-plicatis, prope suturam subangulatim elevatis; apertura subpyriformi, alba, intus lirata, margine incrassato, intus denticulato; canali subproducto retiusculo.—The spiral red liræ crossing the prominent longitudinal ribs resemble those of *F. alternatus*.

65. ANOMALA, f. 139, *Reeve*.—Testa ovato-fusiformis albida, castaneo trifasciata, longitudinaliter rotundo-plicata; spiraliter sulcata; spira elevata, acuminata, anfractibus 5 rotundis; apertura pyriformi, canali breviusculo subtortuo.—Although placed in the genus Buccinum by Reeve, this species appears to agree much better with the Fusi.

66. BUXEUS, f. 61, *Reeve*.—Testa ovato-fusiformis, crassa, obesa, spiraliter distanter undulatim lirata, inter liras striata, longitudinaliter subarcuatim plicata, flavido fulva late castaneo spiraliter fasciata; spira ventricoso-conica, sutura haud profunda, ultimo ventricoso canali brevi, lato; apertura subelongata, alba, intus lirata, margine denticulato; columella granosa.—Our fig. 67 is a reduced representation of Mr. Hanley's type specimen.

Sect. II. *Species* 67 *to* 99.

67. POLYGONOIDES, f. 52, *Lamarck*.—Testa brevis solida, trapezoida griseo-alba, castaneo nigricante maculata et punctata spira breviuscula, anfractibus 5, angulatis, rude plicatis, spiraliter liratis, ad angulum angulatim nodosis, ultimo anfractu biangulato, apertura subquadrata, intus lirata, margine crenato, canali brevi, crasso.—The second variety given by Reeve can scarcely be included in this species, being more of the spindle type; see *F. biangulatus*, f. 159.

68. ARRACANENSIS, f. 133.—Testa subflavida, castaneo fasciis strigisque picta spiraliter striata; spira conica, anfractibus declivibus infra medium nodoso-angulatis, ultimo subcylindrico, apertura subpyriformi intus lirata, prope marginem

incrassata, crenulata; canali brevi, truncato, extus varicoso.—A rather pretty shell belonging to the *Euthria* group.

69. DILATATUS, f. 76, *Quoy* et *Gaimard*.—Testa oblonga, ponderosa, griseo-fusca liris nigrescentibus fasciatim picta; spira obtusa, anfractibus obtuse angulatis ad angulum late nodosis; apertura alba infra subdilatata.—It is quite possible that *F. Mandarinus* may be a variety of this species without the nodose angularity of the whorls.

70. MANDARINUS, f. 71, *Duclos*.—Testa ventricosa, infra spiram subpyriformis, fusca, fasciis castaneis angustis spiraliter inæqualiter lirata; spira obtusa, anfractibus 8 latis, subrotundis, superioribus leviter plicatis; ultimo elongato, ventricoso; apertura pyriformi, magna, margine crenato, canali brevi, truncato.—The narrow bands of colour are nearly concurrent with the liræ, and the whole lower part of the shell is pyriform.

71. PASTINACA, f. 75, *Reeve*.—Testa subrhomboidea tenuis ventricosa, albida (epidermide tenui sublutea) spiraliter bifariam sulcata, superne nodulosa, longitudinaliter plicata; anfractibus 8, angulatis, ad angulum obtuse nodosis, ultimo elongato, ventricoso; apertura magna, intus striata, canali brevi, truncato.

72. TUBEROSUS, f. 54, *Reeve*.—Testa trapezoida, ventricosa, alba, fusco tincta et maculata; spira conica acuminata, anfractibus superne declivibus, acute angulatis, ad angulum tuberculis duplicatis carinatis, ultimo infra angulum distanter septem-carinatis, apertura angulata, margine laqueato; canali brevi, lato.—Of an oblique four-sided form, with a row of double tubercles forming a keel on the angle of the whorls.

73. ROBUSTIOR, f. 63, *Sowerby*.—Testa quam F. ocelliferus crassior, brevior, magis ventricosa, magis angulata, liris majoribus, magis distantibus, verrucis castaneo pictis, apertura intus rude lirata, margine duplicatim dentato, canali latiori nonnunquam umbilicato.—The difference between this and the preceding species is apparent to the eye, and as Lamarck describes the warts themselves rather than the interstices as coloured or ocellated, it is probable that he had a specimen of this species in view rather than those figured in the Encyclopædia and Martini. This species has since

been described as *F. ventricosus*, a name preoccupied for another species of Fusus.

74. OCELLIFERUS, f. 64, *Bory.*—Testa rhomboidea fulva, planulatim lirata, fusco strigata; spira elevata, acuminata, anfractibus 8 elatis, superne angulatis; ad angulum verrucosis, inter verrucas castaneo maculatis, ultimo infra angulum subrotundo, apertura rhomboidea canali brevi.—The figures referred to in the Encyclopædia and Martini certainly represent the species named as above by Bory. But it seems probable that Lamarck had before him the nearly allied, and not the same, species, in describing his *F. verruculatus*.

Note.—F. CRENULATUS should come in here, but is transposed to No. 87.

75. CINNAMONEUS, f. 65, *Reeve.*—Testa ocelliferæ et F. verruculoso similis, sed ad angulum vix tuberoso, concolor. —Presuming the two preceding species to be really distinct, the present approaches more nearly to the former, but the tubercles or warts are extremely obscure.

76. HANLEYI, f. 145, *E. Smith.*—Testa quam F. *craticulatus* angustior, spira magis producta, liris latioribus, margine aperturæ intus dentato.—Similar to but narrower than *F. craticulatus*, with more produced but rather less angular whorls and broader liræ.

77. CRATICULATUS, f. 69, *Blainville.*—Testa breviter trapezoidea, griseo-fusca, spiraliter costata, longitudinaliter plicata; spira acuminata, anfractibus 7 brevibus, latis, angulatis, ad angulum tuberculatis, ultimo magno, canali brevi truncato.—The whorls are very angular and the canal straight and truncated.

78. CORNEUS, f. 80, 81, *Linnæus.*—Testa solida, lævigata, oblonga, grisea vel lactea varie reticulatim et fasciatim picta, spira producta, anfractibus rectiusculis versus suturam excavatis, ad suturam planulatis; apertura subquadrata, intus striata, postice canaliculata; canali antico brevi, lato, truncato, retrorsim elevato.—The above name, through a mistake in one of the references, has been applied by authors to the British *F. islandicus*. The Linnæan name, *Murex lignarius*, belongs to Fasciolaria tarentina of Lamarck.

79. RAPULUM, f. 134, *Reeve.*—Testa ovato-subcylindrica, albida, lævi; spira conica, anfractibus subrotundis, ultimo superne tumido, medio cylindrico infra subangulato; apertura,

cylindrica, canali brevissimo, truncato, extus late varicoso.—The place of this species is somewhat doubtful, but it will doubtless belong to the same genus as the preceding.

80. NIFAT, f. 135, *Lamarck.*—Testa lævigata, polita, subovata, albida, fulvescens, maculis quadratis seriebus quinis picta, spira late conica turrita, anfractibus 7 brevibus, superne angulatis, ultimo subcylindrico, apertura breviuscula, canali brevi, late, truncato, extus varicoso.—*Fusus nifat* has been separated, together with some other species under the generic name Euthria. The latter is a genus, however, which will require much revision.

81. BRAZIERI, f. 147 (*Peristernia* B.), *Angas.*—The little orange-coloured shell figured under the above name in the proceedings does not shew a peculiarity which belongs to the species, and which would, if developed, probably place it in another genus: the outer lip is said to have a small brown tooth anteriorly, which character I have not seen.

Note.—F. tenuistriata should come in here, but is referred to No. 91.

82. DEPICTUS, f. 86, *Sowerby.*—Testa brevis, lævis, ventricosa, sinistrorsa, flammeis castaneis subreticulatis figurata, spira subproducta, anfractibus angulatis, supra angulum declivibus, ad angulum tuberculatis, ultimo ventricoso, oblongo, canali brevi, acuminato.—The smooth surface of this reversed little shell is figured a little fantastically in two bands.

83. TAYLORIANUS, f. 89.—Testa oblonga alba, spiraliter leviter sulcata, longitudinaliter plicata, inter plicas medio rufo maculata; spira producta, anfractibus supra medium angulatis, supra angulum subexcavatis, ad angulum et infra plicatis; apertura pyriformi canali, brevi, lato.—This pretty little shell has square red spots in a central band between the plaits.

84. LINCOLNENSIS, f. 85, *Crosse.*—Testa parva, oblonga alba; spira producta, anfractibus spiraliter striatis, longitudinaliter angulatim plicatis, infra late castaneo fasciatis; apertura brevi, subquadrata, canali brevissimo.—A pretty little banded shell with a produced spire, and whorls angularly plaited above.

85. COREANICUS, f. 33, *Smith.*—Testa subpyramidata, fulva, striata, ad angulum anfractuum minute nodosa, spira pro-

ducta, turrita, anfractibus 7 angulatis, ultimo subquadrato; apertura brevi, canali brevissimo.—An interesting form described by Mr. E. Smith of the British Museum.

86. FICULA, f. 88, *Reeve*.—Testa anguste rhomboidea, pallide fusca, lineis rubris super costas picta, spira pyramidali, anfractibus distanter plicatis, supra medium augulatis, supra angulum subexcavatis, omnino spiraliter sulcatis; apertura subquadrata, labio externo denticulato; canali brevi, lato.—The distant plaits are crossed by liræ with little red bands between.

87. CRENULATUS, f. 170, *Sowerby*.—Testa quam *F. robustior* magis cylindrica, angustior, spira magis elevata, anfractibus ad suturam tumidis, infra canaliculatis, liris spiralibus crenulatis, ad angulum anfractuum nodosis.—This species was at first passed by as a variety of *F. robustior* or F. ocellifera, but the elevated form of the spine and the crenulation of the ridges compel the separation.

The correct place of this species would be following *F. ocelliferus*, No. 74.

88. MEXICANUS, f. 90, *Reeve*.—Testa breviter fusiformis, subquadrata, fulva, griseaceus, rubro longitudinaliter et spiraliter inter costas fasciata; spira subproducta, anfractibus quadratis, superne angulatis, longitudinaliter nodoso-plicatis, spiraliter nodoso-liratis; canali brevi, truncato; apertura quadrata, margine crenato.—Crossed with red bands between the spiral liræ and the nodose longitudinal plaits.

89. CINEREUS, f. 87, *Say*.—Testa oblongo-fusiformis, grisea, spiraliter rude lirata, longitudinaliter rotunde plicata, spira producta, anfractibus rotundis, prominentibus; apertura pyriformi, margine crenato, canali brevi, lato, truncato, recto.—A plain shell of ashy white hue.

90. NORRISSII, figured as Trophon, f. 36, is a more ventricose shell than *F. cinereus*, but neither species is characteristic of the present genus.

91. TENUISTRIATUS, f. 140, *Sowerby*.—(Type in Mr. Hanley's collection from Capt. Beechey.)—Testa parva, angusta, striata, solida, alba, versus apicem subaurea; spira subturrita, anfractibus 6, brevibus, superne angulatis, longitudinaliter medio usque ad angulum superiorem rotundo-plicatis.—The place of this species is next to

92. ALTERNATUS, 138, *Reeve*.—Testa ovata, solida, buc-

cinoidea; spira elevata, anfractibus rotundis, liris prominentibus rubris et nonnunquam parvis intermediis, spiraliter distanter cinctis, longitudinaliter rotunde plicatis, apertura ampla, margine crenato, canali brevi, extus varicoso.—The form of this species is rather that of the genus Buccinum than of Fusus; it has some of the characteristics of the present genus.

93. MYRISTICUS, f. 144, *Reeve.*—Testa flavida, subovata, ventricosa, longitudinaliter angulatim plicata, spiraliter sulcata, spira brevi, anfractibus brevibus, rotundis; ultimo magno, canali distincto, brevi, truncato.—Possibly this doubtful species may prove to belong to some other genus.

94. ANGULATUS, f. 130, *Sowerby.*—Testa quam *F. anceps* angustior, utrinque magis acuminata; anfractibus superioribus pallide castaneo tincto.—The sculpture of this and the following is similar, but the form of the present is more elevated and acuminated. This has been named Pyrula lignaria by *Rve.*, a name we cannot conveniently adopt on account of its previous application (although erroneous) to the true corneus of Linnæus.

95. ANCEPS, f. 131, *A. Adams.*—Testa crassa, alba, ventricosa, breviter quadrilatera, angulata, valide longitudinaliter plicata, plicis nudatis, profunde spiraliter sulcata et lirata; anfractibus supra angulum declivibus, brevibus; apertura intus lirata, margine crenulato; labio interno incrassato; canali brevissimo, latissimo, extus expanso.

96. TURBINELLOIDES, f. 83, *Reeve.*—Testa trapezoidea, tenuis, flavide fulva, fusco lineata, spiraliter sulcata; spira acuminata, anfractibus depressis, angulatis, ad angulum acute tuberculatis, supra angulum declivibus; apertura subpyriformi, alba, canali brevi, lato.—A lighter and smoother shell than others of similar form.

97. TORNATUS, f. 118, *Gould.*—Testa lyrata simili, sed tenuior, anfractibus rotundis, liris tenuiusculis, spira magis exserta.—Although this species has the whorls rounded, while those of *F. lyratus* are angular, it is quite possible that specimens will be found passing from one to the other. *F. subantiquatus,* Pennant, may probably be a variation of *F. tornatus.*

98. HEPTAGONALIS, f. 132, *Reeve.*—Testa crassa, castanea, oblique quadrilatera, medio angulata, late longitudinaliter

costata, spiraliter acute lirata; apertura intus alba, margine fuscato, crenulato.

99. NODOSUS, f. 136, 137.—Testa angulato-subovata, tenuis, crenulatim spiraliter lirata, longitudinaliter plicata; liris ad angulum anfractuum, et plurimis infra nodosis; apertura subpyriformi, canali brevi, emarginato.—I follow *Reeve* in placing this species among the *Fusi*, but not without hesitation.

Sect. III. Species 100 to 117, or 'NEPTUNEA.'

100. BERNICIENSIS, f. 103, *King*.—Testa alba vel pallide rosea, subovato-fusiformis, epidermide fusca pilosa induta; carinis 13 distantibus validis spiraliter lirata; spira conica, obtusa, anfractibus 6, vix angulatis, ultimo ventricoso, subelongato; apertura pyriformi, antice expansa, margine laqueato, canali breviusculo.—When in perfect condition, a very beautiful shell. A hairy epidermis minutely knotted at each of the numerous spiral keels and the delicate fleshy pink of the slightly expanded mouth combine to elicit admiration.

101. SPITZBERGENSIS, f. 105, *Möller*.—Testa solida fusca, fusiformi-pyramidata, recta, profunde spiraliter sulcata; spira producta, acuminata, anfractibus 7 prominulis, rotundis; apertura breviuscula, margine incrassato, crenulato; canali brevi recto.—Resembling shells of the Islandicus and gracilis group, but solid and deeply sulcated.

102. INCISUS, f. 112, *Gould*.—Testa solida, obscure fusca, ovato-fusiformis sulcis duplicatis circa 11 spiraliter incisa, spira obtusa, pyramidata; anfractibus 6 declivibus; ultimo medio ventricosa supra infraque planulata; apertura pyriformi, intus sulcata, margine fusco, dentato, canali brevi.—Spirally sculptured with double incised grooves.

103. TURTONI, f. 106, *Bean*.—Testa pyramidata, solida, alba, leviter purpureo tincta, spiraliter liris planiusculis cincta; spira elevata, acuminata, subconcava, anfractibus 8 declivibus, plus minusve angulatis; ultimo subventricoso; apertura expansa, intus subpurpurea, canali brevissimo latiusculo.—The spire of this still rare northern shell is produced and finely acuminated, the outline being curved inwards and the whorls shelving, and more or less angular. The

mouth is comparatively short but expanded, and the canal very short.

104. NORVAGICUS, f. 122, *Chemnitz.*—Testa ovata, lævis, porcellana alba aut pallide carnea, spira brevi, apice obtuso, anfractibus 5, rotunde declivibus, ultimo oblongo, ventricoso; apertura subovata, labio externo expanso, canali brevissimo.—Of a somewhat oval form and porcellanous texture, delicately white under the epidermis and often of a beautiful pale flesh tint in the mouth. The outer lip has a volute-like expansion.

105. ANTIQUUS, f. 111, 113, 114, 115, 116, 146, *Linnæus.*—Testa alba, vel rufo fusca, solida, ventricosa, dextralis vel sinistralis, striis inæqualibus, raro fasciculatis cincta; anfractibus 8 plerumque superne declivibus, plerumque rotunde subangulatis, apice papillari; apertura pyriformi magna, intus frequenter aurea, margine subexpanso, subincrassato, canali brevi lato, truncato. Variat carinis acutis crenulatis cincta.—Our figs. 113, 114, represent the ordinary form, 115 the ordinary sinistral form, young, 111 is from a fine specimen in Mr. Hanley's Collection, in which the whorls are reversed and the striæ collected in bundles. This variety is figured in *Reeve* for *F. contrarius*, *Lamarck*, but the description in Lamarck only refers to the shell being sinistral, and the figures cited are those of the common reversed whelk. F. 116 shows a carinated specimen of Mr. Hanley's, which he is inclined to refer to *F. carinatus* of *Pennant*, but which shews signs of being very closely connected with this species.

106. DESPECTUS, f. 107, *Lamarck.*—Testa subovato-ventricosa, tenuiuscula, rudis, spiraliter striata et distanter lirata, superne ad angulum anfractuum acute nodosa; spira pyramidata acuminata, anfractibus 8, supra medium angulatis, supra angulum declivibus, infra angulum bicarinatis; apice papillari; ultimo anfractu magno, ventricoso; apertura subrotundo, margine foliatim reflexo, canali brevi.—The growth of this shell is very irregular, in some parts exfoliated, in others tuberculated and keeled. The young is very different from the full-grown form.

107. LYRATUS, f. 117, 124, *Martyn.*—Testa solida, angulatim subovata, fulva, lævigata, liris fusus spiralibus prominentibus costata; spira turrita, anfractibus angulatis; apertura subpyriformi, superne angulata.—Some have re-

garded *F. lyratus* as a form of despectus, but it is altogether a differently textured shell, which can be distinguished through all the modifications of both species.

Note.—TORNATUS, which should follow this, will be found at Sp. 97.

108. CUMINGII, f. 109, *Crosse.*—Testa angulatim subglobosa, spiraliter lirata, fulva, fusco fasciatim picta, ad angulum anfractuum nodulis exfoliatis, fornicatis coronata; spira brevi, anfractibus angulatis depressis; ultimo ventricosissimo, apertura lata, superne angulata, canali brevi, tortuo. —A bulbous and very ventricose, although angular shell, in some respects resembling some varieties of F. despectus.

109. SATURNUS, f. 104, 110, 123, 126, *Martyn.*—Testa crassa, rudis, fumoso-fusca, sublævigata, ovato-fusiformis; spira brevi, anfractibus 5 plerumque angulatis, interdum nodosis, superne planulatim declivibus, ultimo magno, ventricoso, interdum costis crassis lirato, interdum bulboso exfoliato, canali brevi, lato, plerumque tortuo.—A thick, coarse, dull brown northern species subject to great variations of form, among which figure 126, *fornicatus Gmel.*, and 104 may be considered the more normal. None of the forms are striated, as in F. antiquus, and they all present more or less flattened slopes from the suture.

110. KELLETII, f. 108, *Forbes.*—Testa trapezoidea, solida, alba, spiraliter striata; spira pyramidata; anfractibus superne declivibus, infra medium angulatis, ad angulum nodosis; apertura subquadrata.—Angular, solid, and having the whorls knobbed on the angles.

111. HEROS, f. 120, *Gray.*—Testa pallide fulva vel ferrugineo-fusca, elongato-subovata, lævi; spira producta, anfractibus 7, quadrato angulatis, elevatis, ad angulum inæqualiter plerumque distanter nodoso-plicatis, ultimo ventricoso, apertura pyriformi, canali brevi, aperto, subtruncato.—The whorls are elevated in a peculiarly angular manner from the suture.

112. ARTHYRITICUS, f. 121, *Valenciennes.*—Testa saturno similis sed spiraliter leviter striatis, anfractibus superne versus suturam convexis, undulatim tuberosis, apertura intus subpurpurea, interne tenuiter lirata.—I cannot feel at all sure that this species is rightly distinguished from *F. satur-*

nus, unless it be for the convexity of the shoulder of the whorls, the waved tubercles on and above the angle and the striation of the aperture.

113. TÆNIATUS, f. 119, *Sowerby*.—Testa oblongo-fusiformis, fumoso-fusca, crassa, spiraliter leviter sulcata; spira producta, pyramidata, anfractibus 6 elevatis, obtuse angulatis, penultimo et ultimo ad angulum subacute tuberculatis, supra angulum subplanulatis, fasciis fuscis inæqualibus spiraliter cinctis; apertura angulatim subpyriformi, intus fulvo purpurea, fusco fasciata; canali breviusculo, lato, subacuminato. —More gracefully fusiform than *arthyriticus* and *saturnus*, of a dull smoky brown colour and unequally banded with brown lines and stripes. The inner part of the aperture is of a fine puce colour banded with brown.

114. HARPA, f. 129, *Menke*.—Testa ovata, tenui, ventricosa fulva, spiraliter undulatim lirata, oblique arcuatim longitudinaliter plicata; spira brevissima, anfractibus 4, ultimo magno, ventricoso.—More regularly oval than *F. deformis*, and strongly ridged over undulating plaits. In the absence of the operculum, it is difficult to decide whether this species is a Buccinum or a Fusus. The sculpture of the upper part is like that of Buccinum undatum.

115. DEFORMIS, f. 127, *Reeve*.—Testa sinistralis ovata, ferrugineo-fusca, ventricosa, tenuiter spiraliter striata; spira brevissima, papillari; anfractibus 4, superne declivibus, undatim tuberculatis, inter tuberculos concavis; apertura semilunari; columella alba.—Of an obtuse subovate form, the last whorl occupying the bulk of the shell; the apex is broadly papillary and the tops of the last whorls are distantly and broadly tuberculated, with depressions between the tubercles. The columella is white.

116. CASTANEA, f. 128, *Mörch*.—Testa subovata, fusca, lævigata; spira brevi, anfractibus 5, superne declivibus, ultimo magno, angustiusculo, superne subangulato, infra ventricoso; apertura magna, margine subexpanso, canali brevissimo, lato, truncato.—In this species, as in the preceding, the body whorl is the bulk of the shell. The whorls of the spire are sloped, the last obtusely angular, and a little convex below the angle. The outer lip is slightly expanded. May not *Neptunea lurida* be a variety of this?

117. MANCHURICUS, f. 125, *E. Smith*.—Testa anguste

ovata, fusco-cornea, plicis longitudinalibus angustis, distantibus, leviter arcuatis costata, inter costas spiraliter sulcata; spira producta, anfractibus 6 convexiusculis, ultimo lateraliter subcompresso, apertura subpurpureo fusca.—This Japanese species has very much the appearance and form of some species of Nassa.

Sect. IV. Species 118 to 132, or 'Sipho.'

118. Kroyeri, f. 100, *Mörch.*—Testa oblongo-fusiformis, utrinque acuminata, aurea lævis, obscure spiraliter lirata; spira elevata, acuminata, anfractibus 7 declive rotundis, arcuatim longitudinaliter costatis; ultimo ventricoso; apertura pyriformi, breviuscula, canali breviusculo, eleganter tortua. —The specimen figured was kindly lent me by Mr. Hanley, who considers it different from the several shells to which the name is attached in the British Museum. *Buccinum tortuosum* of *Reeve*, as figured in the Iconica, is evidently a distorted specimen of this species. Nor can I perceive its connexion with *Spitzbergensis*, or gracilis, or propinquus, to which by Northern conchologists it has been referred.

119. rectiplicatus, f. 101, *Sowerby.—Testa Kroyeri* similis, sed anfractibus magis quadratis, plicis prope suturam subangulatis, infra rectis, canali breviori, recto, lato.—The angularity and straightness of the plaits seem to me to require a separate designation for this shell, as those of *F. Kroyeri* are elegantly curved.

120. cretaceus, f. 99, *Reeve.*—Testa fusiformi-pyramidata, subaurea, lævis; spira elevata, acuminata, anfractibus 7 superne arcuatim plicatis, rotundis, sutura profunda; apertura breviuscula, intus aurea, margine albo, canali brevissimo, lato.—A pyramidal fusiform shell, with so short a canal as to render it doubtful whether Reeve was not right in placing it in the genus Buccinum. It is, on the other hand, a close ally of *F. Kroyeri*.

120*. fusiformis, f. 84, *Broderip.*—Testa subpyramidata, alba, spiraliter rude lirata; spira producta, anfractibus 8 rotundis; apertura semirotunda, brevi, canali brevissimo.—A white pyramidal North British shell with produced spire and rounded whorls, short mouth and canal.

121. islandicus, f. 93, var. 149, *Chemnitz.*—Testa pyramidata ventricosa alba, rude spiraliter lirata, epidermide

cornea induta, spira producta, apice oblique bulbosa mamillata, anfractibus declivibus, vix convexis, ultimo magno, canali rectiusculo, breviusculo; apertura pyriformi. Variat perobliqua, liris latioribus, canali oblique tortuo.—In Chemnitz' plate two different forms are given. One is represented by our figure 33, also by *Sars*; but the specimen figured in Jeffrey's *British Shells* must be rather an abnormal form. The other is the much more oblique shell with a curved canal and broader liræ now figured 149, from specimens in the Taylor collection. Only the fear of creating confusion prevents my giving a fresh name to one of them. *F. corneus* of author's is Murex lignarius of Linnæus.

122. GRACILIS, f. 94, *Costa*.—Testa quam *F. Islandicus* angustior, tenuiter striata, apice regulariter conica.—Narrower than F. Islandica, the apex gradually sloped.

123. PROPINQUUS, f. 95, 151, 154, 155, *Alder*.—Testa quam Islandica gracilior, anfractibus rectilateralibus valide sulcatis, apice obtuso, ad suturam humerosis, submamillato, rotundo. —It is, like F. Jeffreysianus, more flat-sided than *F. gracilis* and shouldered at the suture. The third apical whorl is round and wide. Figs. 151 and 155 represent *F. attenuatus* and *F. turritus* of Jeffreys respectively, and probably *F. lachesis*, Mörch, f. 154, as represented in our copied figure, may be a variety of the same.

124. JEFFREYSIANUS, f. 96, *Crosse*, *Lamarck*.—Testa quam *F. Islandicus* multo brevior, ventricosa, anfractibus ad suturam humerosis, ad latera rectiusculis, apice obtuse conico. —Were it not for the shorter proportions of this species I should not be inclined to consider the slight apical difference between it and *F. propinquus* of sufficient importance to justify separation.

125. PYGMÆUS, f. 153, *Gould*.—Testa parva robusta, dense lirata, quam F. gracilis magis ovata, anfractibus 6 brevibus, rotundis apice conico, ultimo anfractu brevi, apertura pyriformi parva, canali angusto, tortuo; epidermide serrato.— A much more compact little shell than the young of *F. gracilis* would be, although, like that species, it has a conical apex. The whorls are short, robust, rounded, and not sloped or shouldered. Mr. Bell kindly lent me the specimen figured, which I cannot refer to either of the preceding species.

126. LATERICEUS, f. 102, 152, *Möller*.—Testa angusta, alba pyramidata, anfractibus superioribus cancellatis, ultimo spi-

raliter lirato ; apertura pyriformi.—Not knowing this shell, I give a reduced copy of the figure (152). The cancellated structure of the upper whorls distinguishes *F. latericeus* from others of the same group.

127. PULLUS, f. 142, *Reeve*.—Testa ovato-oblonga, lævissima ; spira producta obtusa, anfractibus 6 brevibus rotundis; apertura brevi, intus purpureo-castaneo, canali brevi, truncato. —A smooth shell with rounded upper whorls of a greyish buff colour. Inside of mouth dark chestnut.

128. GLABER, f. 148, *Verkrutzen*.—Testa F. gracili simili sed lævigata, vix lirata, magis ventricosa.—The spiral sculpture is very slight, and the shape is more sloped and the whorls less distinct than in Islandicus.

129. OBESUS, f. 92, *Sowerby*.—Testa magna alba, pyramidata, ventricosa, spiraliter leviter sulcata ; spira producta, anfractibus 7 declivibus, paulo prominentibus ultimo ventricosissimo subelongato, infra latissimo, apertura lata, subpyriformi, canali brevi, subtortuo.—The shell in the late Mr. Taylor's collection, from which this figure and description are taken, bears a somewhat near resemblance to *F. Glaber*, Verkrutzen, but is more bulbous at the lower part.

130. VENTRICOSUS, f. 98, *Gray*.—Testa globosa alba, epidermide viridi induta, spiraliter lirata, spira brevi, anfractibus 6 rotundis, rapide crescentibus, ultimo globoso ; apertura subpyriformi, canali brevi tortuo.—A very bulbous shell of the northern series, to which *F. Islandicus* and *F. gracilis* belong.

131. SOLIDULUS, f. 97, *Sowerby*.—Testa bulbosa, fusiformi, lævigata albida, epidermide lutescenti nitenti induta, leviter striata ; spira acuminata, anfractibus 5 brevibus, declivibus subrotundis, ultimo subgloboso, apertura subaurea pyriformi, lata, canali producto tortuo.—In form this shell much resembles the young and more fusiform state of *F. ventricosus* as figured by *Reeve* under the names *F. striatus*, *Rve.*, in the text, and *F. ventricosus*, *Gray*, in the Index. It is, however, distinct, being more heavy, as well as more fusiform, and pointed at both ends.

132. EBOR, f. 150, *Mörch*.—Testa ventricoso simili sed canali latissime et brevissime truncato.—Not knowing this shell, I have lithographed the figure from a tracing procured by the kindness of a friend. It *may*, however, be the *striatus* of Gray.

132*. FUSCONODOSUS, f. 169, *Sowerby*.—Testa ovato-fusiformis pallide fulva utrinque acuminata, anfractibus 7, declivibus, subdistanter costatis, spiraliter distanter liratis; ultimo subovato, costis moniliferis, supra medium fusco maculatis.—A beautiful little species with distant beaded ribs, which have a brown spot at the upper part of the last whorl. From Mr. Hanly's collection.

133. LÆTUS, f. 166, *Sowerby*.—Testa breviter fusiformis, alba, fasciatim fusco strigata et maculata, spiraliter lirata; spira acuminata, quam canali longiori, anfractibus 8, superioribus rotunde costatis, ultimo declivi, vix angulato, ad angulum tuberculis parvis cincto; apertura ovata; canali brevi sensim declivi.

134. TESSELLATUS, f. 165, *Sowerby*.—Testa breviter fusiformis, fulva, fusco strigata, maculis nigrescentibus inter nodulos tessellata; spiraliter alternatim lirata; anfractibus subquadratis ad angulum superiorem nodulosis; canali brevi, truncato.—The whorls are of a square form and the shell is prettily tessellated with dark spots.

135. CAUDATUS, f. 167, *Quoy*.—Testa parva alba, spiraliter inæqualiter lirata, brevi; anfractibus prominentibus angulosis costatis, costis ad angulum nodosis, sutura excavata, apertura brevi, canali brevi tortuo.—Not unlike *F. coreanicus*, *E. Sm.*, but more fusiform and more boldly sculptured.

136. EXCAVATUS, f. 168, *Sowerby*.—Testa gracile fusiformis, fulva, spiraliter prominente lirata et interstriata, distanter costata, costis prominentibus, tuberculoso-liratis; anfractibus 10, prominentibus, ad suturam profunde excavatis.—The prominence of the whorls and deep excavation of the suture distinguish this shell from F. rostratus.

137. SULCATUS, f. 173, *Lamarck*.—Testa ventricoso-fusiformis, *F. mandarino* similis, sed magis elongata, anfractibus superioribus, costis majoribus undulatis.—Rather doubtfully distinguished from *F. mandarinus* by its more elongate form and stronger ribs continued to the last whorl.

138. GIBBULUS, f. 170, *Gmelin*.—Testa crassa subtrapezoidea, aurantio-rubra, filis nigris subelevatis cincta; anfractibus brevibus, costis solidis rotundis magnis munita.—Like a Latirus in form but having no plaits on the columella.

139. BOREALIS, f. 110.—? *Saturnus*, var. Text. sp. 109.

140. FORNICATUS, f. 126, *Gml. Saturnus*, var. Text. sp. 109.

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87. crenulatus, *Sby.* f. 170.
120. cretaceus, *Rve.* f. 99.
108. Cumingii, *Crosse*, f. 109.
Danielsoni, Treile, not identified.
decemcostatus, Gld. lyratus, sp. 107.
115. deformis, *Rve.* f. 127.
82. depictus, *Sby.* f. 86.
106. despectus, *Linn.* f. 107.
54. diadema, *Less.* f. 53.
69. dilatatus, *Quoy*, f. 76.
25. dilectus, *Ad.* f. 36.
7*. distans, *Lamk.* f. 162.
13. Dupetithouarsi, *Kien.* f. 5.
132. ebor, *Mch.* f. 150.
echinatus = muricatus.
59. elegans, *Rve.* f. 1.
136. excavatus, *Sby.* f. 168.
86. ficula, *Rve.* f. 88.
64. filosus, *Sch. Wag.* f. 29.
140. fornicatus, *Gml* f. 120.
46. fragosus, *Rve.* f. 47.
132*. fuscoprodosus, *Sby.* f. 169.
120. fusiformis, *Brod.* f. 84.
136. gibbulus, *Gmel.* f. 170.
128. glaber, *Verk.* f. 148.
60. graciliformis, *Sby.* f. 62.

Sp.
122. gracilis, *Costa*. f. 94.
20. gracillimus, *Ald. & Rve.* f. 10.
grandis = Mandarinus.
76. Hanleyi, *E. Sm.* f. 145.
114. harpa, *Mörch*, f. 129.
24. *Hartvegii*, Shuttle, f. 38.
111. heros, *Gray*, f. 120.
98. heptagonalis, *Rve.* f. 132.
102. incisus, *Gld.* f. 112.
36. inconstans, *Lischke*, f. 57, 58.
incrassatus, Lam. undatus, *Gml.* sp. 8.
innotabilis, *E. Sm.* f. 141, purpurea.
121. Islandicus, *Lin.* f. 93, 149.
124. Jeffreysianus, *Crosse*, f. 96.
110. Kelettii, *Forbes*, f. 108.
118. Kroyeri, *Mörch*, f. 100.
lachesis,=propinquus, sp. 123.
133. lætus, *Sby.* f. 166.
30. lævigatus, *Sby.* f. 157.
126. latericens, *Möll.* f. 152, 102.
27*. laticostatus, *Desh.* f. 60, 172.
lignarius = corneus.
84. Lincolnensis, *Crosse*, f. 85.
longicauda = colus.
3. longissimus, *Gmel.* f. 3.
lurida—? castanea var.—? sp. 116.
107. lyratus, *Martyn.* f. 124, 117, 118.
117. Manchuricus, *E. Sm.* f. 125.
70. Mandarinus, *Ducl.* f. 71.
29. marmoratus, *Phil.* f. 19, 20, 158, 163.
58. Maroccanus, *Chemn.* f. 2.
88. Mexicanus, *Rve.* f. 90.
48. minutisquamosus, *Rve.* f. 46.
22. multicarinatus, *Lam.* f. 23.
45. muricatus, *Mont.* f. 160, 161.

Sp.
93. myristicus, *Rve.* f. 144.
27. Nicobaricus, *Chemn.* f. 21, 171.
80. nifat, *Adams*, f. 135.
50. nigrorostratus, *E. Sm* f. 67.
57. Niponicus, *E. Sm.* f. 70.
12. nobilis, *Rve.* f. 4.
Moebii, ebor? 132.
31. nodicinctus, *Phil.* f. 35*.
99. nodosus, *Mart.* f. 136–137.
10. nodosoplicatus, *Dukr.* f. 45.
19. Novæ-Hollandiæ, *Rve.* f. 26.
90. Norrissii,—? as Trophon —f. 36.
104. Norvagicus, *Chemn.* f. 122.
129. obesus, *Sby.* f. 92.
14. oblitus, *Rve.* f. 16, 17.
74. ocelliferus, *Borg.* f. 64.
Ossianus, *Treile*, not identified.
71. pastinaca, *Rve.* f. 75.
34. Pateli, *Dukr.* f. 38.
4. Percyanus, *Sby.* f. 77.
perplexus = inconstans.
18. Philippianus, *Dukr.* f. 156.
1. proboscidiferus, *Sam.* f. 31.
123. propinquus, *Ald.* f. 95, 151, 154, 155.
67. polygonoides, *Lam.* f. 52.
47. pulchellus, *Phil.* f. 7.
127. pullus, *Rve.* f. 142.
125. pygmæus, *Gld.* f. 153.
pyrulatus, f. 74, Gen. Pyrula, sp. 1.
79. rapulum, *Rve.* f. 134.
119. rectiplicatus, *Sby.* f. 101.
62. Reevianus, ? *Petit.* f. 82.
73. robustior, *Sby.* f. 63.
44. rostratus, *Olivi*, f. 41, 42.
61. rubrolineatus, *Sby.* f. 68.
30*. rudicostatus, *Sby.* f. 19, 164.
53. rufus, *Rve.* f. 91.
Sabinii, Gray, Spitzbergensis?

Sp.

17. Sandwichensis, *Sby.* f. 25.
Sarsii, Jeff. ventricosus, sp. 130.
109. Saturnus, *Mart.* f. 109, 110, 123, 126.
9. similis, *Baird.* f. 44.
sinistralis = Maroccanus.
56. simplex, *E. Sm.* f. 34.
105. *sinistrorsum*, Desh. antiquus.
131. solidulus, *Sby.* f. 97.
24. spectrum, *Ad. & Rve.* f. 35.
23. spiralis, *Ad.* f. 37.
101. Spitzbergensis, — ? f. 105.
subantiquatus, Penn. saturnus, sp. 109.
striatus, Gray, Ebor ?
strigosus = rostratus.
33. subquadratus, *Sby.* f. 28.
137. sulcatus, *Lamk.* f. 173.
40. Syracusanus, *Linn.* f. 8. 56.

Sp.

113. tæniatus, *Sby.* f. 119.
2. Tasmaniensis, *Ad.* f. 43.
83. Taylorianus, *Rve.* f. 89.
91. tenuistriatus, *Sby.* f. 140.
134. tessellatus, *Sby.* f. 165.
16. toreuma, *Desh.* f. 12, 13.
97. tornatus, *Gld.* f. 118.
6. torulosus, *Lam.* f. 9.
72. tuberosus, *Rve.* f. 54.
5. tuberculatus, *Lamk.* f. 11.
96. turbinelloides, *Rve.* f. 83.
21. turricula, *Kien.* f. 24.
103. Turtoni, *Bean.* f. 106.
turritus, = propinquus, sp. 123.
8. undatus, *Gml.* f. 6.
42. ustulatus, *Rve.* f. 48.
130. ventricosus, *Gray*, f. 98.
verruculatus, Lan. robustior, sp. 73.
49. vulpicolor, *Sby.* f. 73.
zelandicus = Mandarinus.

MONOGRAPH OF THE GENUS

PYRULA.

Testa canalifera plus minusve pyriformis, supra medium ventricosa, epidermide induta, columella lævi, canali aperto. Operculum corneum, nucleo terminali.—Most of the species group themselves naturally in this genus as distinguished from the Fusi. With regard to the more difficult, the general rule of distinction would be to put with the Pyrulæ those whose apertures are wide at the top and reach considerably above the middle.

Species.

1. pyrulata (Fusus, f. 74), *Reeve.*—Testa tenuis, subpyriformis superne longitudinaliter undata, spiraliter liris validis distantibus et intermediis minoribus cincta, fulva; spira exserta, anfractibus ventricosis; apertura magna, pyriformi.—In the difficulty of drawing a line between the present and the preceding genera, I have hesitated as to this species, which is a Fusus of Reeve, and which is figured in our Plate VII. of Fusus. The posterior width and height of the aperture, however, gives it more the aspect of a Pyrula, in which genus I now place it.

2. subrostrata, f. 39, *Wood.*—Testa subovata lævis, crassa, epidermide lævi induta, spira brevi anfractibus depressis angulatis nodosis, ultimo subquadrato vix angulato, haud nodoso, apertura alba, postice subcanaliculata, labio interno crasso, labio externo intus crenato; canali brevi, lato, truncato.—Of a thick substance and squarely oval form, with a thickened inner lip forming a narrow canal at the spiral end, canal short, broad, and truncated.

3. ORBIGNYI, f. 42, *Reeve* (Purpura).—Testa breviter turbinata, epidermide crasso subserrato induta, liris acute angulatis solidis distantibus spiralibus cincta; spira breviter turrita; apertura lata, labio interno crassiusculo, labio externo acute laqueato.—The distant ridges are sharp enough to be considered keels. The shell is hardly pyriform enough for this genus, and is therefore included with much doubt.

3*. PALLIDA, f. 37, 38, *Broderip*.—Testa subovata subventricosa, nodulosa, epidermide induta, apertura elongata pyriformi, intus pallide violacea, margine crenato.

4. GALEODES, f. 18, 20, *Lamarck*.—Testa griseo-fusca solida rubro lineata, angulatim turbinata, spiraliter inæqualiter striata et lirata; spira breviuscula, acuta, anfractibus superne declivibus, angulatis, ad suturam spinoso-squamatis, ad angulum subnodosis subcarinatis, ultimo ad canalem spiraliter squamoso-varicoso, subumbilicato; apertura pyriformi postice subcanaliculata.—A brown angular turbinated shell with red lines on the grooves or ridges. The lower part of the last whorl is varicose, and the upper part joins the suture with pointed scales.

5. ANGULATA, f. 19, *Lamk*.—Testa griseo-alba, *F. galeodi* simili sed ad suturam haud squamata, ad angulum nodoso-spinosa, infra medium etiam subspinosa.—The want of spine-like scales at the suture, and the presence of spines on the angle and below the middle of the whorls may possibly be admitted as reasons for separating the present from the preceding species.

6. SQUAMOSA, f. 13, 14, *Lamarck*.—Testa cretacea pallida *F. galeodi* similis, sed ad suturam squamis rotundis, ad angulum duplicatim spinoso-squamata infra medium plus minusve spinosa.—This and the two preceding species might be united as only representing variations in the disposition of the scales and spines such as are not uncommon in this very variable genus. Yet the comparative lightness of shell and the roundness of the whorls give to *P. squamosa* a different general aspect.

7. NODOSA, f. 25, 26, *Chemnitz*.—Testa lævis conica grisea fulvescens griseo-fusco fasciata; spira depressa, conica, ultimo anfractu superne angulato, ad angulum nodosa, supra an-

gulum concavo ; apertura subpyriformi, intus et usque ad marginem sulcato, fusco lineato.—Although Lamarck describes this as a pale yellow shell instead of greyish-brown or striped as our specimens are, the figure of Chemnitz to which he refers exhibits the differences in form and sculpture which distinguish *P. nodosus* from *P. paradisiacus* (citrinus, Lamarck).

8. PARADISIACA, f. 24, *Martini*.—Testa lævis citrina turbinata, crassa; spira brevi, planata, ultimo anfractu superne obtuse angulato, supra angulum subexcavato, infra spiraliter leviter striato, apertura pyriformi labio externo intus striato. —This simple smooth, orange-coloured shell is undeniably represented by Martini's figures 909, 910. Besides the absence of regular nodules on the angle of the whorls, it has a more obtuse and straight conical form.

9. CARNARIA, f. 23, *Chemnitz*.—Testa crassa late turbinata, flavido-carnaria læviuscula; spira brevi, anfractibus depressis angulatis nodosis, ultimo superne biangulato, ad angulum superiorem spinis magnis crassis coronato, ad angulum inferiorem nodis rotundis cincto, infra lirato, ad canalem varicoso, crasso, subumbilicato.—Large and ponderous, of a yellowish flesh-colour, much broader than *P. citrina* and *P. paradisiaca*, with large protruding spines on the angle and towards the middle of the last whorl.

10. LACTEA, f. 10, *Reeve*.—Testa fusiformis, pallide carnea, rugoso-undulatim inæqualiter lirata; spira exserta, anfractibus angulatis, longitudinaliter plicatis, ultimo pyriformi ad canalem attenuato, subumbilicato; apertura pyriformi, intus striata, margine tenui, denticulato.—Of a pale fleshy tint with unequal ridges undulating over longitudinal ribs. Although not so pyriform as most of the genus, it is placed here on account of its general proximity to *P. pugilina*, *P. Morio*, &c.

11. PUGILINA, f. 11, 12, 41, *Born*.—Testa subfusiformis ponderosa læviuscula, spiraliter leviter sulcata, rubro-fusca, spira conica, anfractibus depressis augulatis, ad angulum tuberculis magnis acutis coronatis, supra angulum subconcavo-depressis, ultimo ad canalem subcoarctato, canali lato, truncato.—More commonly known as *P. vespertilio* ; in its ordinary form a broad, ponderous, mahogany-brown angularly nodose pyriform shell. In the more dwarf or stunted form,

which has usually been named as above, the spine is more developed and the whorl more angular.

12. COCHLIDIUM, f. 27, *Linnæus.* — Testa oblongo-fusiformis castaneo-fusca, læviuscula, leviter spiraliter striata, anfractibus turritis angulatis, supra angulum canaliculatis depressis, infra angulum rotundis, ultimo magno, ad angulum elevato carinato undulato, infra versus canalem coarctato. —In general character and form approximating *P. pugilina*, but having near the suture a channel formed by the depression of the whorl and a raised parapet on the angle.

13. MORIO, f. 1, 2, *Gmelin.*—Testa magna elongato-fusiformis nigrescens, fasciis albescentibus superne cincta, spiraliter sulcata, spira exserta, anfractibus versus suturam angulatis, plus minusve tuberculatis, ultimo versus canalem attenuato; apertura elongato-pyriformi.—This long blackish, pyriform shell sometimes attains a considerable size, specimens in the British Museum being over a foot in length. The variety, fig. 2, named *Fusus coronatus* by *Lamarck*, is more broadly developed, and has very large tubercles on the angle of the whorls; the whitish bands vary in number, but are always few and are seen towards the upper part of the more ventricose portion of the last whorl.

14. COLOSSEA, f. 3, *Lamarck.*—Testa magna, elongato-fusiformis, pallide carneola, tenuiuscula, longitudinaliter striata, spiraliter distanter lirata et tenuiter interstriata; spira breviuscula anfractibus, superne angulatis, supra angulum declivibus; ad angulum acute tuberculosis; ultimo eleganter pyriformi, versus canalem sensim attenuato.—A specimen of this large and elegant species in the British Museum measures about fifteen inches.

15. TUBA, f. 9, *Gmelin.*—Testa *P. colossei* similis sed brevior, lata, tuberculis longe majoribus, anfractu ultimo infra medium coarctato, tum tumido, infra contracto.—Much broader, shorter, more suddenly contracted towards the canal than *P. colosseus*, with large angular tubercles at the upper angle of the whorls.

16. TERNATANA, f. 7, *Gmelin.*—Testa gracilis castanea, spiraliter lirata; spira producta turrita, anfractibus versus suturam angulatis, ad angulum acute tuberculatis, ultimo elongato-pyriformi, sensim versus canalem attenuato.—This

pyrula may be compared to a much lengthened and refined *P. pugilina.*

17. ELONGATA, f. 8, *Lamarck.*—Testa gracillima pallide flavido-castanea, lævis, leviter spiraliter striata; anfractibus superioribus angulatis, longitudinaliter plicatis ad angulum acute nodosis, ultimo pyriformi, attenuato, canali elongato, sensim angustato.—The most slender of all the Pyrulæ excepting *P. tessellata.*

18. TESSELLATA, f. 6, *Kiener.*—Testa lævissima, volutæformis, gracillima, anfractibus brevibus, subrotundatis, ultimo perelongato, maculatis fuscis castaneis seriatim picto, antice sensim attenuato.—Much like a slender volute inform, with rows of chestnut spots.

19. TABULATA, f. 17, *Baird.*—Testa fusiformis, subventricosa, alba; spira producta, scalariformi, anfractibus ad suturam planatis, angulatis ad angulum squamis elevatis angulatis inæqualibus coronatis, infra angulum ventricosis, spiraliter distanter serrato-liratis, longitudinaliter acute striatis; ultimo magno, pyriformi sensim in canalem decurrenti, apertura pyriformi, elongata, margine crenato.—Although the last whorl is pyriform, I should hesitate in placing the species in this genus, but for its apparent affinity to *P. corona*, as seen in the tabulated space between the suture and the coronated ridge which borders it.

20. CORONA, f. 15, 16, *Chemnitz.*—Testa subpyriformis, crassa, fusco-nigrescens albo bifasciata, sublævigata, spiraliter leviter subsulcata; spira breviuscula, anfractibus 5 scalariformibus, superne angulatis, inter angula et suturam plano-excavatis, ad angulum spinis exfoliatis magnis acutis albis coronatis; ultimo pyriformi ad canalem lato, subumbilicato ad marginem serrato; apertura pyriformi, intus fusco-purpurascente picta.—It is a matter of surprise that Lamarck should have placed this species in the genus Fusus, while his *P. Vespertilio* finds a place here, P. corona being by far the most pear-shaped species of the two. The raised leaflets, forming a kind of corona on the angle, the excavated area at the suture, and the deep colour relieved by bands of white are characteristic and distinctive.

21. MELONGENA, f. 21, 22, *Linnæus* (Murex)—Testa brevi, late pyriformi, crassa, cæruleo-fusca, albo fasciata, leviter sulcata; spira brevi, anfractibus parvis, longitu-

dinaliter plicatis, spiraliter sulcatis depressis, angulatis, ultimo magno, pyriformi, bifariam aut trifariam spinoso ad suturam canaliculato, infra ad canalem exfoliata; apertura magna, pyriformi, labio interno crasse calloso, supra canaliculato; labio externo crenato, canali brevi lato emarginato. —When full-grown, this shell exhibits a thickened expansion of the inner lip and a canal at the suture, where there is a phrenum-like connection with the outer lip. The forms are variable in size, thickness and disposition of the rows of thick spines, some having a double row on the ventricose and a single one on the contracted part, others being comparatively wanting in those appendages.

22. PATULA, f. 28, *Broderip* and *Sowerby*.—Testa magna lata angulata, *P. melongenæ* similis sed turbinata, apertura postice multo magis expansa, spinis uniserialibus, ad angulum dispositis.—The differences between this and the last species are constant, the most remarkable being that the widest part of the last whorl in P. patula is at the upper part, where it is broadly angular, with one row of spines. While P. melongena is broadly pyriform, this species is turbinated. The inner lip in this never obtains the callous thickness of the last.

23. PYRULOIDES, f. 5, *Kay*.—Testa pyriformis, cancellata, subcærulea; spira brevi, anfractibus angulatis superne planatis, ad angulum carinatis.—I am unacquainted with this shell, the figure of which is copied from the 'Natural History' of New York.

24. LAMELLOSA, f. 31. *Kay*.—Testa turbinata angulata distanter plicata, plicis ad angulum nodosis, anfractibus supra angulum complanatis, supra infraque inter angula concavo-depressis.—So angularly turbinated as to form a cone with very distant ribs and wide depressions between them, a nodose keel being formed on the elevated angle.

25. IMBRICATA, f. 4, *Kay*.—Testa rotundo-pyriformis, superne ventricosa, striis tenuiter imbricatis sculpta, spira brevi, acuta, canali elongato attenuato.—Not knowing the shell we give the figure from the American work.

26. CLAVELLA, f. 29, *Reeve*.—Testa bulbiformis, spiraliter sulcata, albida castaneo longitudinaliter strigata; spira breviuscula, anfractibus rotundis, subdepressis, ultimo superne subgloboso, canali subito contracto; apertura intus striata, labio externo intus incrassato, crenulato.—Clavate, or bulbiform, with the upper part of the whorls rounded and ventri-

cose; and the canal attenuated, striated spirally, and striped with chestnut longitudinally; mouth striated within, thickened and crenulated at the margin.

27. MIRABILIS, f. 45, 46, *Angas.*—Testa fusiformis, pallida, tenuiter striata; spira elevata, anfractibus scalariformibus acute angulatis, ad angulum crenato-carinatis, supra angulum late planatis, subexcavatis, infra angulum sensim contractis, versus canalem attenuatis, apertura angulata, margine tenui, supra angulum oblique arcuatim emarginato, infra medio arcuatim producto.—This remarkable shell, found in a Japanese collection by Mr. Thatcher, has been thought to exhibit, in the arched sinus of the outer lip above the angle, a peculiarity of generic value. It has been therefore described by Mr. Angas as Thatcheria mirabilis. The specimen, now in the collection of Mrs. Deburch, is somewhat imperfect, and probably is an undeveloped stage of what would be a much larger shell.

28. SEROTINA, f. 44, *Hinds.*—Testa turbinato-fusiformis crassa albida, epidermide fusco induta, spira producta, anfractibus angustis irregularibus, longitudinaliter plicatis, spiraliter sulcatis, ultimo subito amplificato ad suturam profunde excavato, margine supra suturam rotundo, lateribus deinde compressis, infra medium contractis tum tumidis, canali extus tortuo, ad terminum acuminato, apertura pallidissime carnea, postice canalifera, utrinque callosa et contracta, margine externo denticulato.—The spine of this singular species (Genus *Cyrtula*, Hinds.) is like that of a Fusus of the *Colus* group, and seems to rise suddenly from the turbinated body whorl. On the whole, as the top of the last whorl and opening of the apertura are much above the middle, and also the widest part of the shell, it seems to find place most naturally in this *Genus*, if not standing alone.

29. SPIRATA, f. 29, *Lamarck.*—Testa tenuis oblique elongato-pyruloidea, spiraliter tenuiter striata, fulva, castaneo strigata, spira brevissima, anfractibus depressis, superne angulatis supra angulum planatis, ultimo magno, eleganter curva superne ventricosa, fulva, maculis magnis, bifasciatim dispositis picta, canali elongato medio arcuato; sutura canaliculata, angulo carinato, crenato.—*P. spirata* approaches nearest in form to shells of the genus Ficula. It is thin, elegantly curved and finely marked with two rows of stripe-like spots. It has a chanelled suture resembling that of *P. canaliculata.*

30. CANALICULATA, f. 43, *Gmelin.*—Testa elongato-pyriformis, retiuscula, fulvo-grisea, spiraliter tenuiter sulcata, spira subproducta, anfractibus 7 scalariformibus superne angulatis, ad suturam profunde canaliculatis inter angulum et suturam planatis, ad angulum tuberculis moniliformibus carinatis; canali elongato rectiusculo.—Thicker in substance and straighter in form than the preceding, without patches of colour, and having the angle keeled, as it were, with a series of bead-like tubercles. The sutural canal is deep.

31. ARUANA, f. 34, 35, 36, *Linnæus.*—Testa late pyriformis, crassa, sensim caudata, spiraliter leviter striata, griseo-fulva, fusco grisescente, biseriatim maculis magnis, rubro marginatis picta, superne angulata, ad angulum nodoso-spinosa, supra angulum declivibus, apertura plerumque aureo-flavida, intus lævi.—This species is not, like P. perversa, sinistral, but there are other differences to be noticed, without which that fact would hardly constitute a reason for distinguishing the two shells specifically. The whorls are much more sloped from the suture, the surface is smoother, and the mouth is generally coloured with golden tints and has no internal ribs; specimens of a very large size exist in the British Museum. The small specimen, f. 34, dextral, shows rather more of the characters of the sinistral species, having slight indications of ribs in the mouth. This might possibly be a dextral P. perversa.

32. PERVERSA, f. 32, 33, *Linnæus.*—Testa sinistralis late pyriformis crassa, sensim caudata, spiraliter lirata, griseo-fulva, fusco grisescente biseriatim maculis magnis rubro marginatis picta; superne angulata, ad angulum nodoso-spinosa, supra angulum depresso-planatis apertura intus lirata.—The well-known Pyrula is sometimes deformed by an abnormal development of the vaulted spine, as in the case of fig. 33. In that form it is the *P. candelabrum* of Lamarck.

33. COARCTATA, f. 40, *Sowerby.*—Testa clavato-turbinata, pallide fulva, spiraliter lirata, griseo fulva, strigis rubescentibus medio subinterruptis picta; spira depressa, ad angulum regulariter nodulosa, ultimo anfractu subito in canalem rectum contracto; apertura intus lirato.—Very closely resembling *P. perversa* in all characters but the direction of the spiral and the sudden contraction of the body whorl into a long straight canal.

ALPHABETICAL INDEX TO PYRULA.

Sp.

5. angulata, *Lamk.* f. 19.
31. aruana, *Linn.* f. 34, 35, 36.
bispinosa, Phil. = squamosa, sp. 6.
Bucephala, *Lamk.* = carnaria, sp. 9.
calcaratus, Dilw.=squamosa, sp. 6.
candelabra, *Lamk.*=perversa, sp. 32.
30. canaliculata, *Gmel.* f. 43.
carica, *Gmel.*=aruana, sp. 31.
9. carnaria, *Chemn.* f. 23.
citrina, Gmel.=carnaria, sp. 9.
citrina, *Lamk.* = paradisiaca, sp. 8.
26. clavella, *Rve.* f. 29.
33. coarctata, *Sby.* f. 40.
12. cochlidium, *Linn.* f. 27.
14. colossea, *Lamk.* f. 3.
20. corona, *Chemn.* f. 15, 16.
coronata, Lam.=morio, sp. 13.
17. elongata, *Lamk.* f. 8.
4. galeodes, *Lamk.* f. 18, 20.
hippocastanum, E. M.= squamosa, sp. 6.
25. imbricata, *Kay*, f. 4.

Sp.

10. lactea, *Rve.* f. 10.
24. lamellosa, *Kay*, f. 31.
lapillus, Brod.=subrostrata, sp. 2.
21. melongena, *Linn.* f. 21, 22.
27. mirabilis, *Angas*, f. 45, 46.
13. morio, *Gmel.* f. 1, 2.
7. nodosa, *Chemn.* f. 25, 26.
3. orbignyi, *Rve.* f. 42.
3*. pallida, *Brod.* f. 37, 38.
8. paradisiaca, *Mart.* f. 24.
22. patula, *Brod.* f. 28.
32. perversa, *Linn.* f. 32, 33.
11. pugilina, *Born.* f. 11, 12, 41.
1. pyrulata, *Rve.* fig. 74, in Fusus.
pyrulacea, E. M.=ternatana, sp. 16.
23. pyruloides, *Kay*, f. 5.
28. serotina, *Hinds.* f. 44.
29. spirata, *Lamk.* f. 29.
6. squamosa, *Lamk.* f. 13, 14.
striata, *Rve.*=clavella, sp. 26.
2. subrostrata, *Wood*, f. 39.
19. tabulata, *Baird*, f. 17.
16. ternatana, *Gmel.* f. 7.
18. tessellata, *Schub.* f. 6.
15. tuba, *Gmel.* f. 9.

A MONOGRAPH OF THE GENUS

FICULA.

Genus.—Testa pyriformis, tenuis, fere convoluta superne ventricosa, versus canalem attenuata; spira brevissima, anfractibus depresso-cupolæformibus parvis; apertura utrinque terminalis, margine externo tenui rotundo. Operculum nullum.

Syn. Pyrula, part. Lam. *Ficus*, Rousseau.

The animal soft parts of the Ficulæ are known to be quite different from those of the Pyrulæ nearest to them in the form of the shell. The absence of an operculum is an ascertained fact. The four or five species composing this genus are much alike in the beautiful curves of the pyriform shell.

Species.

1. Ficus, f. 4, *Linnæus.*—Testa superne ventricosissima breviuscula, tenuiter et leviter striata, griseo-fulva, distanter albo-fasciata, super fascias distanter nigro maculata, inter fascias fusco piperita.—Shorter and more ventricose than the other species, with striæ so lightly impressed as to have the appearance of a smooth surface. There are white bands at intervals with rather large dark spots, and the surface between the white bands is sprinkled with smaller spots. *Lamarck*, finding two species referred to by *Linnæus* under the above name, chose to apply that name to the present, and to give a new name to the following species. Reeve afterwards

gave the name *F. lævigatus* to *F. ficus*, which he was hardly justified in doing.

2. RETICULATA, f. 6, 7, *Lamarck.*—Testa superne ventricosissima fulvo-violascens distanter prominenti lirata, liris rubro articulatis, inter liras tenuiter cancellata; apertura purpurea, margine laqueato.—Fawn-coloured, with distant prominent smooth ridges, articulated with reddish spots, cancellated between the ridges; apertura purple.

3. DUSUMIERI, f. 5, *Valenciennes.*—Testa elongato-pyriformis, tenuiter planilirata, inter liras tenuiter cancellata, longitudinaliter undatim fusco strigata; spira exsertiuscula. —This graceful shell is more slender than the other species. It is sculptured with close flat ridges and cancellated interspaces, and striped longitudinally with wavy brown lines.

4. DECUSSATA, f. 1, 2, 3, *Wood.*—Testa moderate ventricosa, fulva, distanter albo fasciata, fasciis maculis grandis distantibus ornatis; fasciis latis, griseo nebulatis binis medio et infra cincta; liris spiralibus granosis punctatis, et minoribus longitudinalibus cancellata.—The ridges are much less prominent and distant than in *Ficula reticulata*. Several broad bands clouded with grey and bordered with large angular spots cross the shell. In the specimen represented by fig. 3, this regular arrangement of bands and spots is lost by the flashes of colour running into each other, and in fig. 2 (*F. gracilis*, Deshayes), the spots are comparatively small and want the connecting bands.

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